

AMERICAN VETERINARY REVIEW.

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EDITORIAL.

EUROPEAN CHRONICLES.

AN old French proverb says : " Faute de grives, on mange des merles " (" From want of thrushes, one eats blackbirds "). From want of man to test the new theory of Koch, one has to be satisfied with monkeys. Insufficient as that may be, read the rough results :

Carrying out a series of experiments decided upon by the committee appointed by the Société de Médecine Vétérinaire Pratique (see January REVIEW, Vol. XXV, No. 10, page 788), three monkeys were *selected* and FED with rice and milk in which cultures of bovine tuberculous bacillus were added. Two received five meals of this appetizing dish, one had only three.

After 69 days one of the first died. Lesions: extensive ascites, miliary tubercles in the omentum, mesenteric glands extensively diseased, intestinal mucous membrane ulcerated with tuberculous ulcerations ; liver, spleen, lungs, full of tubercles.

Another monkey was killed about a month later, and exhibited lesions entirely identical : tuberculous peritonitis, tuberculous mesenteric glands, ulcerations of the intestines, liver and spleen extensively diseased, lungs to less extent.

The third monkey, older, larger and more resisting therefore, in comparatively less diseased condition, was allowed to live a month longer, and at the post-mortem revealed lesions

very similar to those of the two subjects, but less developed.

A fourth monkey which had been killed at the beginning of the experiment to compare with the condition of the others, proved entirely free from tuberculosis.

From these experiments what is proved? First, by the extent and the quantity of the lesions of the digestive canal and its annexes, that it is evident that the intestinal mucous membrane is the way of entrance of the virus and that the infection has without doubt been the result of the *ingestion* of the infected food—a regular *tabes mesenterica* on a small scale; a confirmation of the danger so powerfully demonstrated by Nocard and others, and which plainly justifies the exclamation of Nocard: "Mothers, always boil the milk before you give it to your children."

Will, after this, Koch tell us that the dangers of human infection are exaggerated? Truly, the subjects of experiments were only monkeys—but, as we said in the beginning, "faute de grives, on mange des merles."

But that is not all the results that can be obtained by this experiment that Prof. Nocard has been carrying out with all the care and attention that he brings to all his researches. The lesions which were found in such a short time were enormous in the first two monkeys. If they were of less extent in the third, although a longer time was allowed to elapse, it is because he was older, stronger, more developed, and more able to resist. Is it not the same in the human family, where in two individuals similarly exposed, one will resist longer than the other? But the result will ultimately be the same. And from the condition of the lesions that were found, from the rapidity of their development, the great virulency of the bovine tuberculous bacillus is demonstrated, as well as the excessive receptivity of the monkey for this bacillus.

Would similar results have been obtained with human tuberculous infection? This is a new question. Which of the two, bovine or human, is the more dangerous? The problem is now the object of new experiments.

I will send our friends the complete report of Professor Nocard as soon as it is published.

* * *

MUMPS, which we find described in works on canine pathology under the general heading of the various forms of parotiditis, has taken the attention of pathologists, and it seems that, according to recent researches, an interesting fact has been made out, viz., their contagious property from man to dogs, and although the cases observed are yet few, it is not improper to call the attention of practitioners to it. This, however, is not a new idea. In 1842 Schüssele and Hertwig mentioned something about it, and later Dr. Busquet spoke to the Academie of Medicine of the transmissibility of mumps from man to dog. But yet specialists seemed to have ignored it. Recently, however, I find in one of the Belgian journals an article which tells us: (1st) That dogs are susceptible of presenting the symptoms of mumps; (2d) that the disease is transmissible from dogs to dogs; (3d) that in the sick animal, a microbe is found which grows in the saliva, under the form of a diplostreptococcus and is analogous or identical to that which was found in the mumps of human origin in 1895 by Ferré and Busquet in the saliva and in the blood under the form of a diplococcus analogous or identical to the one described by Laveran and Catrin in 1893, which they had found in human mumps.

Dogs in which the symptoms justified a diagnosis of mumps, always, according to recent observers, had been in contact with persons suffering with this peculiar parotiditis. The symptoms which they presented were: Dullness, anorexia, chills, sneezing, and a puffy swelling of the salivary glands on one side, rather painful. This last symptom is of much importance for the diagnosis.

Several cases are already recorded. Contagion has been proved by the use of a little ball of wadding, which had served to wipe the mouth of a dog diseased.

Specialists on canine diseases and bacteriologists have now a new good field to observe and investigate. They will no doubt be listened to with attention.

* * *

GLANDERS is probably the most horrid disease that man can contract from horses, and on that account the recent work of Prof. Galtier, which I find in the *Journal de Zootechnie*, will carry great value. Bearing in mind that the entire organism is infected, and that it is always dangerous to manipulate it without much precaution, yet, notwithstanding that, and with the knowledge of the danger, how many are the fatal accidents by the numerous ways of entrance which are open to the virus either in man or in animals.

Indeed, Prof. Galtier says: "To better appreciate the extent and the severity of the dangers due to the relations between persons and glanderous animals, either with their cadavers, their remains, or the objects soiled by the virus, it is important to know as exactly as possible the part played in absorption by mucous membranes and by the skin.

"Mucous membranes, intact or slightly irritated, may absorb the glanderous virus which comes in contact with them. This has been seen with the pituitary membrane and with the mucous membrane of the intestines, likewise with the conjunctiva and the genital mucous structures. However, abrasions, desquamations, or frictions render the absorption more certain. The conjunctiva, when diseased, injured, irritated or even intact may absorb the virus, and the projections of glanderous substance in the eye or simply touching it with the soiled fingers or impregnated objects is sufficient for infection.

"In various epochs, I have experimented to appreciate the danger of projections of glanderous virus on the eye, and have used all kinds of virulent products.

"In a series of seven experiments, which I made in 1894, on some forty-two guinea-pigs, I have seen twenty-two become glanderous; all had been inoculated on the conjunctiva, with a

loop of platina dipped in a culture of glanders, and had been left without any after-care.

"In 1896, in comparative experiments, I observed that the glanderous virus deposited on the pituitary membrane gave rise to the disease oftener than when it was placed on the mucous membrane of the eye. Ten rabbits and ten guinea-pigs which had received it in the nose became diseased, while in a similar number where the eye was inoculated, only three rabbits and six guinea-pigs developed glanders.

"In 1899, after an accident, of which I was the victim, I repeated and made more experiments on the absorbing power of the conjunctiva and upon the efficacy of washings with iodurated watery solution."

In glanders, especially in acute, everything, every structure, almost all the liquids, even the blood being virulent, can danger of such contact be exaggerated, and can we ever say too much of the precautions that the practitioner or the bacteriologist must take? No ;—and, yet, if by hazard or by unfortunate circumstance, a possibility of inoculation occurs, time must not be lost, and every measure resorted to to destroy the bacillus of Loeffler, which, if it has a chance, will soon invade the whole organism, which is bound to succumb under its attacks, no matter how high resisting power may be.

* * *

I HAVE received from my friends in America, papers in which probably interesting subjects were printed, and to which, I suppose, the sender desired to call my attention. I take this opportunity to thank my thoughtful colleagues, but must ask them to kindly mark with colored pencil the parts they wish me to look at. Our American journals are quite large, they contain in their numerous pages such a variety of subjects, of news, of information and of advertisements, that it is some times very difficult and not uncommonly impossible to find what one is looking for. A little blue or red pencil mark will clear the subject at once.

A. L.

ON TO MINNEAPOLIS.

When the REVIEW again has the privilege of addressing its readers the minions of the veterinary profession will be in session at the metropolis of the great Northwest, where they will be in attendance upon the thirty-ninth annual meeting of the American Veterinary Medical Association, the representative organization of the whole profession, in all its phases, and which claims as its adherents every veterinarian who acts up to its tenets in all the Americas, and in all the possessions of the Government of the United States wherever situated, from Alaska to the Philippines, and from British Columbia to Patagonia—no matter in what field of veterinary science he may labor, nor whether he be the most distinguished investigator or the humblest every-day practitioner.

It is quite evident to those who have watched the development of the programme of the coming meeting—literary, clinical and social—that we are on the eve of a very successful meeting, probably the greatest from every point of view that has ever been held. It is a progressive organization, and it *should* be the most valuable and largest in her history. Everything points to a record-breaking attendance this year, and the prospects for additions to the membership in the new territory of the Northwest and Canada are very encouraging. The association contains upon its rolls no more able, enthusiastic and energetic members than hail from the State of Minnesota, and the local committee is composed of the flower of its veterinarians, so that we know that the standing invitation to the A. V. M. A. to come to Minneapolis proceeded right from the heart, and now that it is about to throw its tents within her hospitable gates, the National Association can be right sure of a hearty welcome.

In the news department of this issue will be found as full a programme as it was possible to obtain up to the hour of going to press; and we submit that it is a very attractive one, containing intellectual food for every hungry one, with social admixtures to please all. Through the kindness of Dr. M. H. Reynolds, of the Arrangement Committee, the REVIEW is en-

abled to present a view of the veterinary hospital of the University of Minnesota, where the clinic will be held, and also an interior view of the clinic room. From a glance at these pictures it will at once be seen that the A. V. M. A. has never enjoyed such privileges, and it is very much more than probable that the criticisms formerly heard in reference to the clinical facilities at our meetings will be effectually silenced, and that all will agree that the surgical clinic is a grand and permanent section of the annual gatherings.

The section of greatest importance, possibly, in an association representing the American veterinary profession will be the broader questions involving the progress of the science in a national sense, and there is in the programme no curtailment of the time to be devoted to these great problems. The basis of all advancement rests naturally with the question of education, and so the universities, colleges and examining boards will be reviewed and considered by the lights reflected through their work. State medicine and research work are right in the foreground of our professional life, and there will be present to give them consideration, men who devote their entire lives to these fields. The immensity of these subjects renders their consideration practically inexhaustible, and of course the most pressing questions only can receive consideration. Not the least important is the matter of legislation, of a national character, and the committee having it in charge will give a good account of its stewardship.

Associational progress will also call for earnest consideration, which involves the questions of policy, whereby the greatest good to the largest number can be made to flow from its efforts. With papers upon practical subjects, and other themes of general interest, one must have the conviction forced upon him that no veterinarian who wishes to keep in the moving column can stay away from this year's convention except at great loss to himself.

The social features of the coming convention promise to make the respite from the routine of professional duties a de-

lightful diversion, so that the work to be done can be accomplished under the most pleasant auspices.

Get ready for Minneapolis!

WISE AND OTHERWISE.

It is regretted by many with whom we have conversed that the Pennsylvania State Association should have felt itself called upon to censure the New York State Association for its method of dealing with one of its members. At the last meeting of the latter association charges were preferred against Secretary Claude D. Morris for his action in connection with the Army Bill before Congress. The Executive Committee received the charges and disposed of them according to the by-laws of the society, which imperatively requires that "any member who shall be deemed . . . unfit for continuing in membership . . . shall be cited to appear at the next regular meeting and show cause why he should not be expelled," etc. This was plainly the only legal action which the society could take, and the action of the Pennsylvania Association in passing a resolution (printed elsewhere) wherein it "regrets and regards with great concern the attitude of the New York State Veterinary Society in continuing to condone this the most flagrant act of treachery in the history of veterinary medicine in America," is inexplicable and wholly gratuitous, as the Empire State veterinarians believe themselves perfectly capable of disposing of questions which properly come before it without the advice or sanction of its Pennsylvania brethren. In the discussion of the reports at the meeting of the P. S. V. M. A. (published in the June REVIEW), the Secretary quotes Dr. Hoskins as saying: "The [New York State] Association dilly-dallied with the subject and the main effort seemed to be to avoid the issue, and the question was laid over for one year. He feels the association should be censured for its *cowardice* [italics ours], and will introduce a resolution later to this effect." In this the speaker has made a misstatement of fact, since the association neither avoided nor attempted to avoid the issue, as it promptly took it

up and acted upon it calmly, deliberately and legally ; and did not permit itself to become hysterical by inflammatory speeches, such as were uttered at Atlantic City, and when they again meet the subject will be brought up and disposed of according to the by-laws and in the best judgment of the members, irrespective of what a few of the Keystone veterinarians may think. As against this conservative and proper action, our friends who were so hasty and vindictive at Atlantic City may have to reconsider their action, and adopt the same course pursued by the society which has incurred the commiseration of the Pennsylvanians.

NEW JERSEY VETERINARIANS are not satisfied with having driven the legislative nail right into the head ; they have gone around to the other side and clinched it. The recent law secured by the State Association regulating and protecting the profession was hardly dry upon the Statute book, when the formation of county societies was begun to make sure of its enforcement. To this end the veterinarians of Passaic county have formed an association, and the record of their organization and first regular meeting is given in this number. New York State is much in need of just such a spirit, and it is earnestly hoped that her veterinarians may take heart and follow the good example of New Jersey, now that the way has been blazed.

Dr. M. H. REYNOLDS, of the Minnesota Experiment Station, in forwarding an article on "Nodule Disease of Sheep" for publication in the REVIEW, remarks : "This article was written for farmer readers . . . ; it, however, covers a practical experience which veterinarians in country practice are liable to have at any time, as the disease is becoming very common in this country and is a serious matter for sheepmen." Our readers will find it in this issue in the department of "Original Articles."

"SECTIONAL WORK [in the A. V. M. A.] will come when we have gathered in a large majority of the foremost men in all

the various lines of our work, and not until then."—(*Journal for May*). We would like to see a list of "the foremost men" who are outside of the membership of the Association. Is not such an argument sufficiently ridiculous to discount the whole contention of the *Journal*?

"PESTE" is described by Dr. Coleman Nockolds, veterinarian U. S. Army, Batangas, P. I., in this number. Such widespread and rapid depletion of herds of cattle as he tells of can scarcely be imagined, and, while his experience is extremely revolting, it is intensely interesting as a contribution to the clinical history of the most fell-destroyer known in the annals of medicine, the pestilential rinderpest.

DRS. ANGLICKER AND SCHUMACHER, of Milwaukee, Wis., report the success of Bassi's operation for habitual luxation of the patella in a trick pony in this number of the REVIEW, department of "Reports of Cases." It is extremely interesting, and is considered by the authors as very practical, and one which could well be introduced into general practice.

DRS. HUGHES AND BAKER, of Chicago, have issued invitations to all who are likely to go by the "Veterinary Special" from Chicago to Minneapolis Monday evening, Sept. 1, to a supper on board the train, which will make the journey a most pleasant and enjoyable occasion.

Dr. M. H. Reynolds, of Minneapolis, writes: "The local Committee of Arrangements is receiving a great deal of encouragement concerning the coming meeting of the A. V. M. A., in Minneapolis. Dr. Monsarrat, of Honolulu, has written that he fully expects to be in attendance. He will probably hold the record for distance. What State will have the record for the greatest number of representatives?"

Dr. Reynolds suggests the use of simple State badges for those attending the Minneapolis meeting; something inexpensive, to cost only a few cents.

ORIGINAL ARTICLES.

THE LIVING AND THE DEAD:

REMINISCENCES OF THE VETERINARY PRACTITIONERS OF FORTY
YEARS AGO.

BY ONE OF THEM.*(Continued from page 299.)*

ISAIAH MICHENER, V. S.

After sixty years of practice, this veteran and pioneer of veterinary medicine received at his death, from the two veterinary journals of the country, obituary notices, where all that could be said of him can be found.

Hard worker, of superior intelligence, and careful thinker, Michener, as it has been stated, was also a self-made veterinarian—which he was justified in being proud of. He held many official positions, we all know, and no one was more deserving or able to fill them. Called to the chair of theory and practice at the organization of the Pennsylvania College of Veterinary Surgeons in 1866, he was already somewhat known outside of his State (Pennsylvania) by the action he took as one of the promoters of the Astor House meeting. He, of course, was one of the first to sign the constitution of the U. S. V. M. A. and a close attendant of the meetings, where his appearance, somewhat Quakerish in aspect, was always welcome.

Dr. Michener wrote quite a number of articles relating to his profession. His pamphlet on the paralysis of the par vagum, to which he attributed the symptoms observed in some manifestations of cerebro-spinal meningitis, was for a long time the subject of many warm discussions at the meetings of the association.

He has received a great moral reward for his love and assiduous labors in behalf of his profession. Three veterinarians began their studies under him. "They are my own students,"

he used to say. Those veterinarians have all made their marks in the profession—Charles B. Michener, one of his sons; A. A. Holcombe, and M. R. Trumbower. Each one has done well and their old first master could of just right be proud of their successes.

Isaiah Michener was rather peculiar in some of his ideas, and, unless we knew him imperfectly, he has appeared to us as being slow or perhaps unwilling to accept new ideas, new theories or new instruments.

We remember a story about him, which occurred many years ago, when his son, Charles B., was attending a veterinary college in New York. The old gentleman had called at the time an examination was being made of a sick horse. The veterinarian who was making it and taking the temperature with a thermometer, in turning round to shake hands, saw him laughing and making fun. "What," said Michener, "thou also make use of those little glass tubes?" At the answer given him, that it was the only sure way to measure the temperature and judge of the fever, he added: "Well, I don't believe it; I do not use it, and I depend entirely on my hand, which will not deceive me." We feel sure that before a long time had elapsed, and after he had had opportunities to use the thermometer and see its advantages, he was not so certain of the infallibility of his feelings with the hand, to detect a dropping or a rising of fever heat of one degree or a fraction.

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THOMAS B. RHODES.

Does this man deserve to be placed here? No; and yet he played such an important part in the veterinary practice of forty years ago, in New York City, that he can scarcely be entirely ignored.

He was an Englishman, and the legend had it that all of his connection with the veterinary profession consisted in having been a stable boy with some celebrated English practitioner. At any rate, in 1860 he was in New York enjoying the largest

practice one could dream of. There was not a firm with horses which did not employ him, and his services (?) were demanded from all the stage companies which ran through New York. He went to private stables, to large and small establishments—in fact, everywhere,—he was the lion of veterinary medicine. And, yet, the man was of the utmost ignorance. Could he read? I doubt it. Could he write? I do not know. In appearance he was small and of rather repulsive manners; he was always dirty, with his clothes full of blood or of stable marks, which seemed to be for him a means of advertising. And, yet, strange to say, he had in the lower part of the western section of New York an infirmary which was kept as many of those of our present day are not.

At the foot of Jane street he had an immense wooden building, divided into large airy box-stalls, with plenty of fresh bedding always, and kept as clean as he, the "doc," was dirty. He had made there an office, where, with few instruments, in good order, with fewer books, he had collected a certain number of specimens, which he exhibited dry or kept in clean glass jars, and with which, with most absurd stories, he related fantastic illustrations of his skill, and, of course, of his wonderful success.

I remember one day he had invited several members of the U. S. V. M. A. to come and visit his infirmary. We all went, and when in his office, C. M. Wood, the mischief-maker of the crowd, detected in one corner on a high shelf close to the ceiling a large jar, in which was floating, hanging, a small body whose form he was unable to make out. He called one of the stablemen to bring it down for our examination. It proved to be a small fish hanging by the tail, the jar being labelled: "This fish I removed from the uterus of a mare." After this, Rhodes never invited any more veterinarians to Jane street.

It is useless to say that Rhodes was not a member of the U. S. V. M. A. It was good fortune for the association, as he might have called at the first meeting, and it would have been difficult to refuse him membership.

Rhodes hung on to his success for awhile, but by degrees his

bad habits took the best of him ; he gradually lost his practice, and, if my memory serves me right, died in want.

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WILLIAM SAUNDERS, V. S.

When Saunders signed the constitution and by-laws of the U. S. V. M. A. at its organization, he was already 46 years old. Having come to America from England, where he was born, accompanying his father, also a veterinarian, he was nothing of a student, and, although he met with a certain amount of success, he was inclined to be arbitrary under favorable conditions.

According to some who knew him well, he was a patronizer well marked, rather liberal and of good judgment, but his mind was made up quickly without resorting to the ordinary way of arriving at conclusions, and yet not without a certain amount of self-confidence. "I cannot see that this horse trots lame," he used to say, "but I can hear him."

This fault of his he certainly communicated to some of his students. He, however, did not accept it with them, but, on the contrary, would ridicule them. I remember one instance of a story he was fond of repeating at some of the last meetings he was with us. One of his so-called students, then raised to the dignity of practitioner, was one day with him, a certain Mr. C, and to him Saunders asked an opinion on a case of lameness. C was a small, insignificant, and, of course, conceited fellow, more fond of smoking either good or bad cigars than of reading a scientific book. He was too happy to express his opinion on a case of lameness when his old teacher asked for it. The horse was brought out of the stable and as he started to move, before he had trotted more than a hundred yards, C turned on his heels, and chewing a cigar bigger than himself (said Saunders), exclaimed but one word to explain his diagnosis—"Navic," said he. If we remember rightly, the horse had not navicular disease, but the name "Navic" stuck to C thereafter.

Wm. Saunders was of a lymphatic temperament, not fond of reading nor of studying, and in his professional life

depended largely on his experience to carry him through.

As an individual he was very congenial, quite agreeable and very friendly. He had been connected with free masonry for many years, belonged to several lodges, and had served in the militia of the State.

Speaking of him, one of our mutual friends writes :

"Nothing to extenuate, nor aught set down in malice.

"W. S. was a good practitioner of medicine. He was safe, had great power of observation, and learned rapidly from that source. He had commercial faculties largely developed, and always had a large business.

"He was a great favorite with almost every one he met, and was generous and genial, every day. People employed him who recognized him as a man of no great education, and they made no mistake in doing so, for their interests were safe in his hands and his judgment in general practice was good.

"He has never been a studious person. It was easy to recognize that. But his manners and dignified appearance carried him along, and it was fair flood tide with him always.

"Every man finds material enough to build with, whether it be foundation or superstructure, roadway or building, but it is hard and a chance for him to select the proper material which shall serve him in building a character and career for himself. And the thought will arise often that the easiest road is the best to choose.

"Napoleons, Cæsars and Wellingtons are few!—So are Websters, Holmeses, and Emersons !

"But does it pay to strive ? How few attain ? How many of the ambitious fall short of their aspirations ?

"I say nothing whatever of W. Saunders, except that he was of that large class, the unlimited majority who choose the easy roadway, and in saying that I hope I have not failed to appreciate all that was pleasant, sociable and companionable in my intercourse with him."

JOSIAH H. STICKNEY, M. D., M. R. C. V. S. L.

Who in the profession does not know Joe Stickney—the clever, highly-educated, thorough diagnostician? At our meetings, we believe, he was the oldest practitioner of veterinary medicine. To Boston, whence he went to London to graduate, he returned to practice, and was there with Mr. Lillyman, the only graduate in Massachusetts. He from the start made his mark among his brother practitioners, lectured at Amherst on veterinary topics, and when the U. S. V. M. A. was organized, as a token of appreciation, he was unanimously elected the first president of the new-born professional body.

Dr. Stickney, for he had before going to England taken his degree of M. D., was in 1860 a very active man, always ready for a scientific discussion, a consultation or a doubtful diagnosis to settle. He was most hospitable to his friends, and always preparing for their reception some gay entertainments, especially for the semi-annual meetings of the association, which were held in Boston.

Some few may remain of those days; if there are any, they may recollect the long drive he gave us to his father's home, one of the most beautiful spots around Boston, through roads lined with old trees, many loaded with fruit. At the end of the drive we had a charming collation. But after pleasure, work must come. There was a doubtful case of lameness; a general consultation was to be held, and each one must express his opinion on a piece of paper and throw it in a hat. One of us, "Frenchy," as he was nicknamed, in examining the horse, made a motion which made the horse jump, and one of his feet crushed the toes of our friend by stepping upon them. The injury was not severe, but the sarcasm that befell our dear foreigner served him a good lesson in making him more careful afterwards. It is strange, but that was the last of our pleasant excursions at those meetings.

At the time of our writing the above Dr. Stickney was, thanks to God, yet among the living members of the U. S. V. M. A., and with the good constitution he had, there was no rea-

son to suppose that, notwithstanding his age, he would not stay long with us; but the Great Ruler of all things decided differently, and a few days before accomplishing his 75 years, he died in his native place, Boston, at his *alma mater*, where he graduated in 1858.

From one of his intimate friends we have received the following :

"Here was a character, to contemplate and understand which would require greater capacity than I am possessed of. He was one of the fairest intellectual attainments, of the deepest and largest beauty of character; a thinker, a reasoner, a fair opponent, a gentleman—a whole gentleman.

"During 40 years that I was accustomed to meet him daily, I never found him other than brotherly, fatherly. Among my recollections of occasions in which we both participated, and of all our associations together, I find in his memory extreme joy, a source of satisfaction. As a scholar, a great thinker, in the ordinary course of my life I have failed to find a superior. He was modest and yet forceful, unassuming and yet confident, generous and self-sacrificing beyond measure."

A student and friend to the last moments of Josiah Stickney, writes of him :

"Original in a very marked degree, his mission was to aid the profession, and with her, in spite of his failings, he never was at odds. A tireless practitioner and close student to the end. The last remarks he made to me in the hospital, the Sunday before he died, were: 'Interesting cases come to us about the time we are ready to die.' He was studying and thinking of the interest of his own case.

"Stickney was bitter against opportunism, distrustful of all that were patronizing; he was caustic and quick in his replies, and never given to idle talk. Honest with himself, he commanded the respect of all, even of those who disagreed with him.

"I heard him remark on different occasions: 'If you accept a position or a case, you are supposed to know about it. D—

the man whose opinion is biased by his followings. Did you ever see a similar case? No! Why in h— do you not read your text books?" "

Such expressions of appreciation from friends tell much of the value of that old veterinarian.

(To be continued.)

TO STUDY TUBERCULOSIS—VETERINARIANS TAKE A PROMINENT PART.—At the recent annual meeting of the American Medical Association, which convened at the United States Hotel, Saratoga Springs, on June 10, in the "Section in Hygiene and Sanitary Science," Dr. D. E. Salmon, of the Bureau of Animal Industry, presented a paper on "Recent Investigations Concerning the Relation of Human and Bovine Tuberculosis"; Dr. R. R. Dinwiddie, of Fayetteville, Ark., also dealt with the same subject under the title of "The Intertransmissibility of Human and Bovine Tuberculosis: A Review of the Experimental Evidence," while the theme was further elaborated by Dr. M. P. Ravenal, of Philadelphia. At the close of the discussion a resolution was passed suggesting that the association petition the federal government to appoint a commission, similar to those appointed by European governments, for the purpose of studying and investigating the whole subject, with a view to the discovery of the best means of preventing the spread of the disease in man and animals.

STOCK DYING FROM LACK OF WATER.—Dr. Leslie Allen, inspector on the staff of Col. Albert Dean, live stock agent in charge at Kansas City for the Bureau of Animal Industry, has just returned to Kansas City from a trip into New Mexico and Arizona, whither he had journeyed to inspect cattle sold for shipment North. He states in a published interview that water has been so scarce there for a long time that cattle are dying by hundreds for want of it and that all those able to do so have moved their stock out of the stricken region. This region includes, according to Dr. Allen, the southern half of Arizona, the southern half of New Mexico and the old Mexican States of Chihuahua and Sonora. In parts of this district, he says also, sheep are dying by thousands and it is well known that sheep can live on much less water than cattle.—(*Breeder's Gazette*, June 4.)

THERE are 38,000,000 horses of all kinds in Russia.

A BACILLUS LIABLE TO BE MISTAKEN, MORPHOLOGICALLY, FOR THE BACILLUS OF TETANUS.

BY FRED F. BUSHNELL, B. AGR., WINSTED, CONN.

The morphology of the bacillus of tetanus has been quite generally considered sufficiently characteristic to be of specific value. Because of its anærobic nature, its isolation in pure culture is attended with much difficulty, a condition which has doubtless heightened the importance of its morphology, in its specific determination. As in practice the diagnosis of tetanus is usually made from the appearance of the bacillus in cover-glass preparations, made from the scrapings of wounds suspected of being infected; the finding of pseudo-tetanus bacilli introduces an element of uncertainty in the interpretation of the appearance of organisms, morphologically like *B. tetani*.

In 1893, Sanfaliece described a tetanus-like bacillus which he found in earth. Kruse describes a bacillus under the name *B. pseudo tetanus ærobius*, morphologically like that of tetanus, which he obtained by Kitasato's method, from a case of tetanus in man. Von Lubinskii isolated from an abscess an organism which morphologically resembles that of tetanus, and more recently a tetanus-like organism was obtained from a blank cartridge wound from a patient in the Massachusetts General Hospital, by Bain.

In the fall of 1901, I found in the pus discharging from the lesion in a case of poll-evil a bacillus which on account of its morphological resemblance to *B. tetani* seems to be worthy of a somewhat careful description. The patient from which this organism was obtained was a brown mare, weighing about a 1000 pounds. She was presented at the college clinic for treatment for a fistula upon the poll. The lesion was apparently of long standing, as pus of a dirty white color and of a very fœtid odor was discharging from it.

There were a number of scars about the fistula, showing that the animal had previously been operated upon, apparently with-

out success. After the part had been thoroughly washed with soap and water, and carefully disinfected with sublimate solution (1-1000) a small piece of skin was taken from the external opening of the fistula, placed in a sterile test tube and taken to the laboratory, where tubes of bouillon were inoculated and agar plate cultures were made. On the following day the cultures contained a micrococcus, a streptococcus and a slender rod shaped organism with a polar spore, which at the first glance appeared to be that of tetanus. As it seemed to be a very unusual place to find the tetanus bacillus and as the patient improved very rapidly, showing no symptoms of tetanus, it seemed desirable to isolate the organism and to determine its characters.

This bacillus, which, in the beginning, was thought to be anærobic, grew very rapidly under aerobic conditions in the presence of the other organisms found associated with it in the lesion. Under these conditions, spores were produced in from 24-36 hours. When it was first isolated in pure culture, it failed to grow in ordinary media, under aerobic conditions, however, after inoculating a tube about two-thirds filled with liquid blood serum, the growth took place after several days. The fact to be noted here is, that while the organism is almost a strict anærobe, yet under certain conditions it will multiply in the presence of oxygen.

In isolating this bacillus, plate cultures in agar were made without success, on account of a spreading growth, which covered the medium. Liborius' method of cultivating anærobic organisms was tried in agar, also cultures were heated to 60-65 and 70° C. for 15 minutes, but without success, as it did not destroy the accompanying bacteria. Finally as a last resort a guinea-pig was inoculated subcutaneously with one cubic centimeter of the original bouillon culture; the animal died after 21 days. Cultures were made from the liver, spleen and heart blood, in tubes of bouillon and liquid blood serum. The organism appeared only in the tube of blood serum, which was inoculated from the liver, and upon examination it was found to be in pure culture.

Morphology.—A very slender bacillus, with rounded ends and varying in length from 2.4μ and 0.5μ in breadth. It may appear as a single rod, in pairs or in threes. In young cultures it is actively motile. It produces a polar spore, which is slightly more oval and larger than that of the bacillus of tetanus. When first isolated the spores developed in from 7–10 days, but after several generations on artificial media they appeared regularly in from 48 to 72 hours. No capsule was observed. It stains readily with carbol fuchsin, but not so easily with the other bacterial stains, except, perhaps, in very young cultures. It decolorizes when treated after the Gram method. The spores survive heating at 80°C . for 45 minutes. They are destroyed when heated at 100°C . for 20 minutes. It is an anærobe but a facultative ærobe, growing rather slowly in the incubator at the temperature of 37°C . in ordinary tubes of agar and bouillon, while in media containing one per cent. glucose, the growth is much more rapid.

Agar.—In stab cultures, after 24–36 hours, a minute, grayish white growth develops along the needle tract and gradually extends laterally into the medium, presenting a very irregular border, which imparts to the medium a hazy appearance. The growth is more vigorous in agar containing one per cent. glucose. On agar a grayish white growth appears. In deep cultures (Liborius' method) containing one per cent. glucose numerous whitish colonies develop. When isolated, the colonies are round, with an opaque center and presenting a fuzzy and not well defined margin. Under the microscope the colonies are round and have a dirty whitish color, granular, with a dark center and poorly defined margin. The isolated colonies in agar plates vary from 1–2 mm. in diameter; they present a fuzzy margin, are friable and can be easily separated from the medium. No odor was detected.

Gelatin.—In this medium the growth is feeble, appearing in the stab cultures in from 7 to 10 days. The growth appears along the needle tract as minute, spherical, white colonies, which seem to be distinctly separate from each other

There is no softening or liquifaction of the medium.

Blood Serum.—On the solid medium, the growth is confined beneath the condensation liquid, appearing as a dark greenish color, which has a slight tendency to soften the medium. In the liquid serum the growth is very feeble and no marked change in appearance occurs, except, perhaps, it turns to a slightly darker color. A sediment appears in the bottom of the tube.

Potato.—The growth on this medium is feeble. It is non-viscid, moist, glistening and of a dirty white color.

Bouillon.—In the course of 36 to 48 hours, the alkaline bouillon becomes faintly clouded with flocculent masses held in suspension. A white viscid sediment appears at the bottom of the tube. A very delicate pellicle is formed upon the surface in from 56-72 hours later; the surface pellicle breaks up and settles and a ring of whitish deposit is found on the inside of the tube at the surface of the medium. The chemical reaction of the bouillon remains unchanged and no odor was detected.

Effect on Sugars.—In the fermentation tubes containing glucose, lactose and saccharose bouillon, there is a moderate growth; the bouillon becoming faintly cloudy in both the closed branch and the open bulb, with a marked acid reaction in each. Gas is not produced.

Milk.—There is no precipitation or coagulation of the casein. There is no change except in the chemical reaction, which becomes more acid.

Indol.—No indol reaction was obtained.

Pathogenesis.—Although the guinea-pig that was inoculated from the original bouillon culture died after 21 days, subsequent inoculation from a pure culture gave negative result.

For convenience in comparing the properties of the bacillus of tetanus, the pseudo-tetanus bacillus of Bain and the organism which I have described, I have arranged them in like order in the following table :

B. Tetani.	Pseudo-Tetanus (Bain).	Tetanus-like bacillus from pus. (Poll evil).
1. Slender rod shaped organism with rounded ends. 4-5 μ in length and 0.4 μ broad.	1. A slender bacillus with rounded ends, variable in length and about 0.5 thick.	1. Slender rod-shaped bacillus with rounded ends, in length from 2-4 μ , about 0.5 μ thick.
2. Motile though not actively so.	2. Non-motile.	2. Actively motile in young cultures.
3. Obligate anaerobe.	3. Obligate anaerobe.	3. Anaerobe and facultative aerobe.
4. Spores are not killed by exposure of one hour at 80° C.	4. Spores survive heating at 80° C. for 30 minutes.	4. Spores are destroyed at 100° C. for 20 minutes.
5. Liquifies gelatin slowly.	5. Does not liquify gelatin.	5. Does not liquify gelatin.
6. Does not grow well on blood serum, occasionally reported to liquify serum.	6. Grows readily on blood serum and the medium is slowly liquified and a peculiar foul odor is developed.	6. Does not grow readily in blood serum and does not liquify it.
7. Stains with ordinary anilin dyes and does not decolorize by Gram's method.	7. Stains readily in young cultures and decolorizes by Gram's method.	7. Stains well with carbol fuchsin, but not readily with other stains except in young cultures. It decolorizes by Gram's method,
8. Kills guinea-pigs in 24-36 hours.	8. Does not kill guinea-pigs.	8. Does not kill guinea-pigs.
9. Gelatin is slowly liquified and a small amount of gas is produced.	9. Produces small amount of gas in glucose bouillon.	9. Ferments sugars, forming acids but not producing gas.
10. Grows best in medium of a slightly alkaline reaction.	10. Grows best on slightly acid media.	10. Grows best in acid media.
11. Spores are formed in 30 hours. Spores are spherical.	11.	11. Spores are formed in from 56-72 hours. Spores are slightly oval and larger.

From the description of the various properties of the bacillus which I have described, it will be observed that it differs from the bacillus of tetanus in certain very important properties and characters, namely, (1) it is facultative ærobe ; (2) it is actively motile in young cultures ; (3) it does not liquify gelatin ; (4) it does not take the Gram stain, and (5) it is non-pathogenic for guinea-pigs. Although morphologically it resembles the bacillus of tetanus, the elongated and slightly pointed form, which its spores usually assume, together with its cultural differences and non-pathogenic effect on guinea-pigs are sufficient to differentiate it from *B. tetani*.

The close resemblance which exists between these organisms, however, emphasizes the fact that in certain cases it may be impossible to make a positive diagnosis of tetanus from a microscopic examination. In cases of doubt, a careful examination of the cultural and pathogenic properties of the suspected organism must be determined, otherwise a serious error may occur.

This organism was found in a somewhat interesting manner in a second case of inflammation. One of the students working in the laboratory found his bouillon cultures to be contaminated with a tetanus-like organism. Upon making a careful inquiry into its probable source I found that the student having the contaminated culture was at the time attending a case of metritis in a mare, a patient in the college hospital. Further observation showed that there was a discharge from the vagina, from which cultures were made. These contained with other bacteria an organism which morphologically could not be distinguished from the one which I had previously isolated from the case of poll-evil. The fact suggests that probably this organism is quite widely distributed.

"FASHIONS IN HORSE BONNETS" was the title of a large illustration in the New York *Herald's* Paris letter of July 5. The familiar types seen in the streets of Gotham in the torrid parts of summer seemed to be the rage among the Parisian *modistes*.

"PESTE." *

BY COLEMAN NOCKOLDS, M. D., V. S., VET. 1ST-CLASS, U. S. ARMY,
BATANGAS, P. I.

During the month of April, because of frequent reports, I was ordered by my regimental commander to investigate and report upon a disease that existed and was decimating the cattle and pigs on the island of Maranduque, eight hours' journey by steam launch from this post. After reporting to the commanding officer of the 30th Infantry, stationed at Boac, one of the garrisons on the island, and obtaining ponies, native guides, provisions, etc., I proceeded to visit the different haciendas around the coast and in the interior. To my inquiries it was always the same answer: "Si, Señor, I had plenty of cattle, but they are all dead now." One man, who counted over two thousand a month before, could now count twenty; another who had fifty, now had but one left. The barrio of Garsau, which boasted of having five hundred fine working caribou and oxen, had just four left. As for sick animals, there were none; the plague had come and gone; what few cattle there were left were either rendered immune by a previous attack or had recovered. Nothing that I had ever seen resembled the existing conditions as much as the drought of 1890 in Western Texas, when one could walk long distances on dead cattle that had died around the dried-out water-holes. One had only to ride to the top of a knoll in Maranduque to see hundreds of dead cattle; especially were they thick near streams, where the poor fever-stricken beasts had wandered in search of water. The stench in places was unbearable, and it was often necessary to hold a handkerchief over your nose for miles; the water in all the streams is contaminated; it smells bad, and is full of hairs; even after seeing some boiled, and putting in lots of coffee, I vomited and was sick for twenty-four hours from drinking it; yet the natives have to use it. Cocoa-water furnished me with drink during the rest of the time I was away from post. Unfortunately

* Tagalog for the disease described.

I was unable to see a single sick animal during the two weeks there, but have no doubt from what the natives said that the trouble was rinderpest. The ultimate results of the outbreak are of course no meat supply ; but, what is far more important, loss of the only beasts of burden that the Filipino has. The cattle and caribou are used to till and plough the rice fields and draw their carts ; the carts are pulled by men, and the fields are untilled, cutting off the food supply to a people who are already much impoverished by a long continued war, and now cholera has stepped in to collect its tribute. Upon my return to Batangas Province, I found that rinderpest had broken out near the post at which my regiment is stationed ; it is three years since it decimated the animals here before. At present it exists in the provinces of Batangas, Cavité and Tayabas, and perhaps up north. It also exists in the islands of Mindoro, Mindanao and Samar and all through the south part of Luzon.

I have been able to observe animals from the time of exposure until death ; so will briefly run over the chief facts.

I believe the period of incubation to average about one week, and its course about the same length of time. Some animals die in a few hours, but they are exceptions, as the average die in about seven days after the acute symptoms manifest themselves. Among animals that have died during this epizootic are cattle, caribou, pigs, sheep, and goats. I also saw a number of dead deer in Marandique, which no doubt succumbed to rinderpest. A large number of chickens have also died, but whether due to this disease or some other I do not know. About one week after exposure there is a marked rise of temperature, 42-43 C. The animals refuse food, but are very thirsty ; there is constipation, followed by profuse diarrhœa, which is often bloody ; the pulse is small and fast. Debility comes on quickly, and the animal lays down most of the time. The coat is dull and bristling and the ears hang down. Muzzle dry, rumination stopped, and back arched whilst standing. There is a sticky, purulent discharge from the eyes and nose, a frothy discharge from the mouth. The mucous membranes

of the mouth, nose, anus and vagina are inflamed and blotched with red swellings or ulcerations. The cattle and caribou lose their hair about the fifth or sixth day. All the usual signs of an intense fever are apparent. Pregnant females abort. In some cases the brain is affected and the animals become violent as if mad. The symptoms are much the same in the pig and other animals. Those that recover are evidently immune from other attacks.

From a number of cultures which I made from blood, fluid in the abdominal cavity, spleen, liver and intestines, the appearances are as follows:

Agar-agar.—In 24 hours a growth of white flakes, more pronounced on the surface than down the track of the needle, resembling pieces of felt, clearly separated from each other. In 48 hours those upon the surface turn an orange yellow. Under the microscope these are seen to contain spores of an oval shape, often in pairs and chains.

Upon potato the growth is whitish at the point of contact surrounded by a thick slate-colored mould, plainly visible after six hours, and spreading very quickly. This contains bacilli single and in chains from $\frac{1}{2}$ to $1\frac{1}{2}$ micrometers in length and $\frac{1}{8}$ in width, all encapsulated and some containing what are evidently spores.

On coco media in 24 hours a whitish growth containing black specks; in 48 hours this growth sinks to the bottom; this contains bacilli resembling those found on the potato. All stained easily with simple stains.

Because of the climate was unable to use bouillon.

Two horses that were inoculated with blood and culture showed no symptoms of disease.

Autopsy.—Macroscopically the organs that are most conspicuously altered anatomically are the liver and rumen. The former is of light red color (brick) and extraordinarily soft, resembling pulp. The gall-bladder is full of thin bile, and the latter, the mucous membrane of which almost falls off by its own weight when that organ is turned inside out, leaving red

ulcerated patches ; in rare cases the spleen is enlarged and its contents are softer than normal. The intestinal tract shows more or less ulcers in its entire length ; there are dark spots on its serous membrane. The buccal membrane, tongue, and mucous membranes of the nose, vagina, and rectum are ulcerated ; these ulcers are often covered with a greyish membrane. The glands of the stomach and intestines are swollen and the rectum bulges. The other organs, as the heart, kidneys and lungs, show the usual characteristics caused by intense elevation of temperature. The pericardium is often plum-colored. The thighs are covered with fæces, blood, and a peculiar purulent discharge from the rectum, and a frothy substance, full of cheesy-looking flakes, block up and exude from the nostrils and mouth.

The native treatment consists of cutting off the ears close to the head. Among others that I heard of carrying out the treatment of rinderpest was one hospital corps man recently discharged, who was selling bottles of medicine at \$10 each. One Manila veterinarian was sending out boxes of pills, very much resembling aloetic balls, discarded because of becoming hard, at \$10 a box.

The commanding officer at Boac informed me that a man who was employed by the quartermaster as a veterinarian was sent down from Manila to investigate for the civil government just lately that had been employed as packer and scout, a calling which he had followed for many years, and which had earned for him the nick name of "Wild Bill." I did not hear the result of his investigations. The same officer related that an acting assistant surgeon, U. S. A., had manufactured a serum which he sold at one hundred dollars a bottle, to prove the efficiency of which he inoculated six cattle, which were healthy, and in a district that had hitherto been free from disease. Not only did the six die, but the whole district became infected with rinderpest ; yet, many natives that had the money, bought ; but then the native Filipinos are ready to buy almost anything that is American, and they make typical victims for sharks.

Personally I have done nothing more than investigate as or-

dered, and with making my official report, in which I have asked that this matter be brought to the notice of the proper authorities, whom I presume to be my confrères of the A. B. I. My duty is done. I sincerely hope something will be done soon for the sake of the people, who are, and will necessarily suffer severely from the effects of this dread calamity, and under the existing conditions naturally look for the Americans to help them out in this disease of cattle, as they have done with small pox among themselves.

THE first sealed thermometer was made some time prior to 1654 by Ferdinand the Second, Grand Duke of Tuscany; he filled the bulb and part of the tube with alcohol, and then sealed the tube by melting the glass tip. There appears to be considerable doubt as to who first employed mercury as the thermometric liquid; the Academia del Cimento used such an instrument in 1657, and they were known in Paris in 1659. Fahrenheit, however, appears to have been the first to construct, in 1714, mercury thermometers having trustworthy scales. The use of the boiling point of water was suggested by Carlo Renaldini in 1694.—*Engineer.*

WAS A JACKASS.—Here is a true story. An amateur was induced to place a ten-dollar bet with a bookmaker, and won \$25. This pleased him so much that he placed the \$25 with the bookmaker on the next heat. He won again. The third heat he played all his roll, amounting to \$60 or \$70, and lost, whereupon he fell over in a dead faint. His brother, who chanced to be present, ran for a doctor, and asking him to make haste, as he imagined his brother was dying. "I am a veterinary surgeon," the doctor said. "You are just the man I am looking for," the man replied excitedly, "as my brother is a jackass."—(*Spirit of the Times.*)

JOHN HAINES, in *Horse-Shoers' Journal*, says 99 out of every 100 balky horses can be started by simply raising a foot and with a hammer give a light tap to each nail-head and then a smart rap on the frog; put the foot down quickly, and chirp to the horse. The driver must keep the lines taut, and not pull or jerk the horse.

DO NOT PUNISH YOUR HORSE unless you are sure that he deserves it. If you have the least doubt whether he deserves it or not, give the horse the benefit of the doubt.

AN EXPERIENCE WITH NODULE DISEASE OF SHEEP.*

BY DR. M. H. REYNOLDS, EXPERIMENT STATION, ST. ANTHONY PARK,
MINN.

History.—In the fall of 1900, Mr. A. W., a farmer in the western portion of the state, had a nice flock of 260 sheep, and plenty of winter feed. The summer pasture had been short and water somewhat scarce, so that the sheep were compelled to feed very close to the ground and to drink from a pond which became very stagnant. This pond receives drainage from the barn yard and also to some extent from the pasture, a significant fact in view of later developments. The sheep were somewhat crowded while in the barn, but had plenty of good feed and plenty of yard room.

During the winter the flock became unthrifty; some individuals grew gradually thinner and weaker until a total of 61 died in this way during the late winter and early spring. As soon as the grass came and the sheep were turned out they began to do better and the disease seemed to disappear. The feed during the winter had been nice, bright millet hay, fine wild hay, good corn fodder, and during the latter part of the winter the sheep had some screenings and some corn, but they did poorly in spite of good feed, and, ofcourse, the owner had a poor lambing season in the spring, which added materially to his loss.

In the fall of 1901, Mr. W—— had about 240 sheep in this flock, apparently in fairly good condition. During the late winter the flock became unthrifty again. The barn had been enlarged during the preceding summer and the sheep were no longer crowded. There was plenty of choice millet hay, good corn fodder with some nubbins, nice bright wild hay, all of which were fed generously, together with some screenings during the latter part of the winter and early spring. Some of the animals grew very thin and weak, and finally they began to die as during the previous winter. A total of 55 were lost in this way up to the time of my visit, a large proportion of them dur-

* Reprinted from *The Farmer*, Minnesota.

ing March and the early part of April. During the previous summer the pasture had been good; but the sheep had been allowed to drink from the stagnant pond already mentioned as receiving drainage from the barnyard and to some extent from the pasture, over which the affected sheep had grazed.

Early in April the writer visited Mr. W——'s farm, and found the entire flock in very unthrifty condition, but with every evidence of good feed and good shelter. A few hungry little lambs were following their apparently half-starved mothers, and the general outlook was not encouraging. Two animals were selected as being typical of those that had died, and were examined post-mortem. The intestines in each case were found thickly studded with characteristic nodules of what is known as nodule disease.

Cause of the Disease.—The disease is caused by a minute round worm (*Oesophagostoma Columbianum*). The adult worms described are about half an inch in length and may be found in the intestines, and particularly in the large ones. The immature forms vary from 1-100 to 1-6 of an inch in length, depending on the age and stage of development, and are found inside of the little nodules which constitute the most prominent feature of the disease seen on examination post-mortem. The life history of this parasite is now quite well understood, although the disease has been recognized but a comparatively short time. The eggs are laid by the adult female in the intestine. The eggs soon hatch, and the embryo worms pass in some way through the internal lining of the intestine, and become embedded there, giving rise as foreign bodies to the little tumors or nodules which nature throws around them, evidently in an attempt to fence them off. They must cause some irritation as foreign bodies, and this irritation will account for the little tumors which are found on the side of the intestine.

Some of the adult worms pass out with the manure, and thus infect the pastures and feed yards, ponds or sluggish streams which receive their drainage, as in the outbreak described in this article.

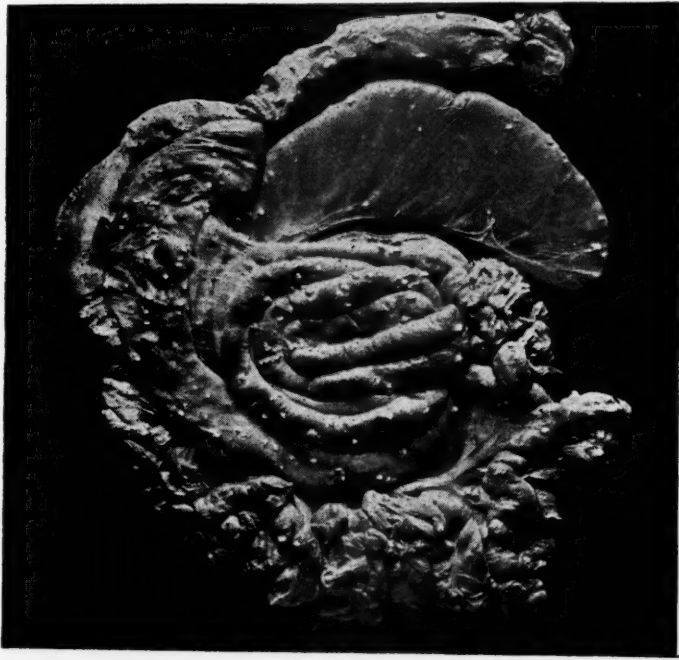
The extent of injury to the individual sheep depends mainly upon the number of worms present, and the condition of the sheep as to vitality and resisting power. There may be something of an inflammation of the bowels while the young worms are passing through the lining of the intestine, but the main injury is that of starvation. So large a portion of the bowel is diseased by the parasites when they are present in great number that there is not enough healthy tissue to absorb the food material. A badly infested sheep may have plenty of good food and yet be too weak to eat it, or if able to eat, he may still be starving because the intestinal wall cannot take up the food that may be ready for absorption.

Older sheep suffer worse, as a rule, because the longer an infected animal lives the worse the intestines become diseased by the parasites.

Diagnosis can only be made by finding the characteristic nodules in an examination of the dead animal, for sheep infested with some other diseases, especially parasitic diseases, show similar symptoms and conditions during life.

Treatment.—Prevention.—It is probable that but little can be accomplished by medical treatment, because the worms, during a large part of their life history, are safely walled up in these nodules and beyond the reach of any medical agent. In dealing with a serious outbreak of this disease it should be remembered that infested flocks usually do fairly well during the summer and early fall months. If a flock is badly infested with nodule disease, it will generally prove good management to nurse the flock through until spring, then depend on getting the sheep into shape for market during the summer and sell out for butcher stock in the early fall. Such sheep are entirely fit for food purposes when in good flesh. A new start may then be made with a good prospect of success if certain care is had to avoid another general flock infection.

The new sheep should be purchased from a flock that has been thrifty during two previous late winters and early springs, and they should be kept for two seasons on some other pasture



than the one previously used. It will be better still if the flock can be kept part of the season on pasture and part of the season on plowed corps, *e. g.*, rape, sorghum, field peas or meadow land that has not recently been used for sheep pasture. The new flock must not be allowed to drink from any pond or sluggish stream that has received drainage from the infested pasture or barn yard.

With a view to preventing this and other parasitic diseases in the future, the flock should not be kept too long on one pasture, but should be moved about from pasture to pasture; and from pasture to stubblefields, cut-over meadow, rape, etc. Sluggish streams and ponds should be regarded with suspicion always.

It is possible to practically rid a flock of nodule disease by following this course of shifting the flock about for several years, plowing up pastures occasionally and using plowed crops, but in most cases, with the exception of valuable sheep, particularly breeding flocks, it will usually be found more satisfactory to change the entire flock on the plan suggested.

CALCULI, AND A NEW MODE OF OPERATING.

By J. F. BUTTERFIELD, V. S., S. MONTROSE, PA.

Presented at the Annual Meeting of the Pennsylvania State Veterinary Medical Association, March 4 and 5, 1902.

Calculi are concretions which may form in every part of the animal body, but are most frequently found in the organs that act as reservoirs, and in the excretory canals. They are met with in the joints, biliary ducts, digestive passages, lachrymal ducts, mammæ, pancreas, pineal gland, prostate, lungs, salivary, spermatic and urinary passages. The causes which give rise to them are obscure.

Those that occur in reservoirs or ducts are supposed to be owing to the deposition of the substances which enter into the composition of the fluid as it passes along the duct; and those which occur in the substance of an organ are regarded as the product of some nutritive irritation. Their general effect is to irritate as extraneous bodies the parts with which they are in contact; and to produce retention of the fluid whence they have been formed.

The symptoms differ, according to the sensibility of the organ, and the importance of the particular secretion whose discharge they impede.

Their solution is generally impracticable. Spontaneous expulsion, or extraction by surgical aid, are the only ways of getting rid of them.

Arthritic Calculi, concretions which form in joints. Similar calculi are found in the ligaments, and other parts. They sometimes cause rheumatic lameness and excessive pain. They are composed of uric acid, soda and animal matter.

Biliary Calculi are most frequently found in the gall bladder (in those animals which have one), in others in the substance of the liver or in the branches of the ductus hepaticus. The causes of biliary calculi are also very obscure. They are usually composed of cholesterine and the yellow matter of the bile. They may occasion violent abdominal pain. In our pa-

tients we would be unable to make a correct diagnosis. Abscesses, biliary fistulæ, and fatal effusions into the peritoneal cavity may follow.

Calculi Lachrymal sometimes, but rarely, form in the lachrymal passages. They may occasion abscesses and fistulæ.

Calculi of the Mammæ have been found in this organ, of a yellowish white color, having the shape of the excretory duct. They are liable to cause abscesses, and may be removed through the abscess.

Calculi of the Pancreas.—These are but little known. They are supposed to resemble the salivary.

Calculi of the Pineal Gland.—No phenomena announce their presence during life. They are composed of phosphate of lime.

Calculi Preputal are composed of sabulous and exfoliated matter. They may occasion symptoms similar to urethral and vesicle calculi. Have seen them in oxen as well as in the male equine. They should be removed with the oiled finger.

Calculi of the Prostate are usually composed of uric acid. Symptoms common to those of calculi of the bladder are likely to develop.

Pulmonary Calculi are usually formed of carbonate of lime and animal matter. They are sometimes met with in the dead body, by butchers, and in autopsies, without seeming to have produced unpleasant symptoms during life, or they may cause symptoms of phthisis; at other times they are expelled spasmodically.

Salivary Calculi.—Concretions usually formed of phosphate and carbonate of lime. They are developed in the substance of the salivary glands or in their excretory ducts. In the first case they may be mistaken for a simple swelling of the gland, in the second they may generally be detected by the touch. They should be extracted by incision in the interior of the mouth. If taken from the outside it would occasion a fistulæ that it would be difficult to close. The writer removed this specimen, weight 4 oz., from a grey mare belonging to a Mr.

Vail. It was situated in Steno's duct, near the entrance to the mouth. With a mouth speculum to hold the mouth open and a small scalpel, I was enabled to remove it readily.

Calculi of the Stomach and Intestines.—Gastric calculi could not be formed in the stomach itself on account of the acid reaction of its contents and because of the short time the alimentary matter remains there. (In ruminants it may be otherwise.) The anti-peristaltic movements of the intestines bring them back to the stomach from the intestines. Calculi are ordinarily formed in the large intestines, colons, rarely in the cæcum. The causes which give rise to them are ingestion of hair during shedding, or feeding ripe hairy plants, as clover, millet, soja beans, etc. Also feeds rich in magnesia and lime phosphates. Intestinal concretions vary in their composition. They are light, hard and very foetid. Whilst they do not obstruct the passage of the alimentary mass they produce no unpleasant symptoms. At times they may be diagnosed by examination per rectum. The violent symptoms occasioned by them are frequent colics, of a periodic character, of a more rapid course than is due to accumulation of alimentary matter in the intestinal reservoirs. Treatment.—In desperate cases laparotomy may be attempted. A case we diagnosed as intestinal concretion recovered after several months without treatment.

Urinary Calculi are concretions which form the crystalizable substances in the urine, and are met with in the whole course of the urinary passages. Their causes are but little known. They receive their name from the location in which they are found—as renal, calculi of the ureters, prostate, vesicle, and urethral calculi.

Renal and Calculi of the Ureters occasion similar symptoms, and cause violent pain at times. Urethral and vesicle calculi are the most common, and are more readily diagnosed, and may be extracted by surgical aid more successfully than most other forms of calculi. Of the urethral calculi the obstruction which they cause to the passing of the urine, the hard tumor, and the noise occasioned when struck by a sound or catheter indicates

their presence. They are removed by forceps or incisions.

Of the *Vesicle Calculi* they sometimes proceed from the kidneys. Most commonly they are formed in the bladder itself. Frequent attempts to pass urine, sudden stoppage to its flow, and bloody urine, are the chief phenomena that induce a suspicion of their existence. We cannot, however, be certain of this without an examination per rectum.

There is no such thing, probably, as a medical solvent. A surgical operation is applicable.

I will report a case of vesicle calculi that I had in my practice and our mode of operating for it, original with me.

On April 18th, 1900, Master Winfred Liffany, of Harford, Susquehanna Co., Pa., brought to my place, a white pacing gelding, very handsome, about eight years old, and weighing about 1000 pounds. He was dribbling urine slightly and attempted to urinate every few minutes. He was slightly run down in condition. Master Liffany had traded for him only a few days before. Upon rectal examination I found a vesicle calculus the size of a large hen's egg. This was the first and has been the only one I have found thus far. The boy wanted to know if I could remove it successfully. I told him I thought I could, and he left the horse with me. I deferred the operation until April 30th; in the meantime I tried both in New York and Philadelphia to obtain lythotomy forceps from the veterinary instrument dealers, but was unsuccessful. I had by this time decided upon my plan of operation. With the assistance of Dr. J. G. Wilson, M. D., and Druggist Sidney Jencks, of Montrose, and my man of all work, we cast the horse with the "Conkey" harness, having previously dieted him on bran mash for twenty-four hours. I then made an entrance to the pelvic region of the abdominal cavity the same as we do in the operation for cryptorchids, as follows: With an ordinary castrating knife I made an incision in the scrotum large enough to pass my hand. With my hand I broke down the connective tissue and fascia, and with a slight rotary movement, I passed my hand right up into the inguinal region, and when I had

reached about two inches above the ring, I broke through the peritoneum, which brought me in the pelvic cavity near the bladder. I located the bladder at once and seized it with the calculus and brought them out of the opening into view. Held them while my assistant, Dr. Wilson, with suitable catgut, passed sutures in the muscular coat of the intending opening into the organ, leaving a loop above the point to cut through; being careful not to pass the needle through the mucous coat of the bladder. With an ordinary scalpel we cut through muscular portion under the loop of the catgut left for the purpose. We now shoved the muscles one side as far as we could, and cut through the mucous coat and removed the stone here shown (weight 5 oz.). We now sutured the mucous coat with fine catgut, one-fourth of an inch apart, and drew up the sutures in the muscular portion and tied them. We now let the organ return to its normal position and allowed the horse to regain his feet. He manifested pain for a couple of hours and strained, passing a little blood.

The next morning I let him out to eat a little fresh grass, and watched him for half an hour, when he urinated very naturally and did not strain at the close as he had done when carrying the calculus. I let him out for a little exercise and to eat the fresh grass every day. He improved rapidly. Passed a little pus at times. Sent him home May 14th, just two weeks after the operation, a distance of fourteen miles. About four weeks from the time of the operation he strained and passed a little pus, but it lasted only two or three days, probably due to the sloughing of the sutures in the mucous coat of the bladder.

The horse was allowed to run at pasture for about three months. He gained in flesh and is in fine condition, and has been perfectly healthy since, doing all kinds of work. I see him frequently when in that vicinity.

RHYTHMIC, a blind trotter, won the Merchants' and Manufacturers' Stakes for the 2:24 Class, at Detroit, Mich., July 16, the best time being 2:11 1/2. The horse never started in a race before, and won in hollow fashion.

PNEUMONIA AND ITS TREATMENT.

By J. D. FAIR, D. V. S., BERLIN, OHIO.

Read before the Ohio State Veterinary Medical Association, Jan. 14th, 1902.

Croupous, exudative lobar diffused pneumonia is one of the very common diseases which we are called upon to treat, especially in a feeding district, where colts and thin horses are shipped in and put up in good barns and prepared for the Eastern market. The pathology, etiology and symptoms of pneumonia taught by the various teachers and different authors are generally accepted and understood by us all. But let us hope that some scientist, microscopist or pathologist will, in the near future, discover some source of prevention or some method of treatment that will shorten the course of the disease and lessen the percentage of fatality. I believe that pneumonia in an infectious disease, due to some virulent poison (a pneumococcus), and under certain climatic influences they become very numerous. Horses, as well as people, breathe in this poison, and if any subject is caught below par, nature can no longer resist the poison, hence the irritation, next there is a determination of blood to the lungs, followed by a chill and the usual constitutional symptoms of the disease.

This brings us down to the practical part of the disease, namely, the diagnosis and treatment.

The diagnosis is simple, but to recognize and differentiate between some of the most serious complications early in the disease is very important. Knowing the results of these complications modifies the treatment and largely assists us in making our prognosis. I have adopted a course of treatment for a number of years and I consider it very satisfactory. I modify my treatment so as to meet the various conditions and complications as they may arise during the course of the disease: (1) The preliminary treatment, such as placing the patient in a roomy, clean box-stall, away from other horses, properly ventilated, the body temperature to be regulated by means of friction

and proper clothing. This is observed by us all. I think medicine should be administered every three hours, day and night, and the patient should be visited at least once every twenty-four hours. I am desirous to have my patients eat, and I offer and tempt them with all kinds of food to induce them to eat. I think, if we keep their bowels in good condition, the rule is that they will eat. In the summer I give them grass, green corn, corn-blades. In the winter nice clover hay, corn-fodder in the sheaf set in each corner of the stall. Some horses will eat oats out of a clean tin pan; others will eat bran mash out of your hand, but I find the majority of my patients prefer corn, and I give them all they want to eat. I never allow any refused feed to lie in the feed box or trough; keep everything clean and tidy, and the stall well bedded; fresh water should be offered quite frequently, especially in the summer.

From the preliminary treatment and instructions which I have given, it is understood that I have a case of simple or double pneumonia, and in the congestive stage, with a temperature of 106° to 107° , pulse 84 to 96, respiration 54 to 68. I at once prepare the following prescription:

R Quiniae sulph.,	3 iv.
Hydrochloric acid,	ad q. s.
Nitrous ether,	3 ii.
Fl. ex. jaborandi,	3 i.
Tr. zingiberis,	3 i.
Sp. frumenti, ad q. s. to make	3 viii.

R Dovers powder, 3 vi to 3 i. Divide into six powders.

To the first powder I add from one to two drachms of aloes and one drachm of calomel. I immediately administer the special powder and one ounce of the liquid preparation, and continue giving one ounce every three hours; with the second dose I give a powder, but from that on a powder every other dose. The object of the special powder is to open up the bowels and liver, and as a rule the bowels will operate all right during the entire course of the disease. By the time I get through with my prescription, I have the owner or attendant to make the necessary preparations to apply a good mustard blis-

ter. I apply it to both sides, and I am not very timid about it. I cover plenty of space and use one pound of good powdered mustard, not ground; always use a good quality. It must be fine, and mix it up rather thin. I apply it with plenty of friction; have a man on each side of the horse, and do it quickly. After I am through rubbing, I cover the mustard with table oil-cloth, with the oil-cloth side next to the mustard. I fold a woolen blanket and place it over the oil-cloth. This is fastened down with two surcingles or straps, one to catch the anterior border and the other to catch the posterior border. Then cover with a large blanket, nicely adjusted to the body.

As a rule, the patient has a little sore throat, and I apply a sharp liniment to the throat.

Many have discarded the idea of punishing a horse suffering with pneumonia by blistering him; but I reason as follows: (1) It irritates the patient sufficiently to cause him to move about and exercise; combine this with the Dover's powder, jaborandi, etc., previously administered, diaphoresis is almost sure to follow. (2) If you have any pleuritic complication, I do believe it will counteract it to a certain extent. (3) After the irritating properties of the mustard subside, then it serves as a poultice, and remains moist and hot continually for three to six days. As long as it is hot and moist under the oil-cloth I leave it alone; I don't remove it.

If I catch those cases soon after the chill I expect the congestion to terminate or give way to resolution in a few days. Sweat your patients; keep the skin active for twenty-four hours, and the temperature will drop, and the pulse will harmonize with the temperature. If the congestion fails to pass off and the lungs become hepatized, then I change the treatment. I endeavor to prevent new invasions. I try to keep up a good strong circulation. The heart is the principal thing to care for; build up and stimulate the patient in general, and this I do as follows:

R Quiniæ sulph.,	3 vii.
Acid hydrochloric,	ad q. s.

Sp. nitrous ether,	℥ ii.
Sol. strychniæ, 1 gr. to	℥ ii.
Fl. ex. digitalis,	℥ ii.
Spiritus frumenti <i>ad q. s.</i> to make	℥ viii.

Give ℥ ii every six hours, and alternate with an emulsion of carbonate of ammonia. This I prepare as follows :

℞ Ammonia carb.,	℥ i.
Powd. acacia,	℥ ii.
Fl. ext. glycyrrhizæ,	℥ ss.
Aquæ dest., <i>ad q. s.</i> to make	℥ viii.

Of this preparation I give ℥ ii every six hours. In this way the patient gets medicine every three hours. I vary those prescriptions to a certain extent ; for instance, the patient refuses to take any nourishment, I add to the quinine preparation tr. gentian and tr. ginger, instead of the whiskey. Being alcoholic preparations they would have the same stimulating effects and at the same time act as a good stomachic. If the patient seems to grow weak, and it is a good addition at any rate, add about two ounces of whiskey to each dose, and add this just when you administer the medicine. When the disease is going to run its course, try and prevent new invasions, and this I trust to good nursing and the quinine. The nitrous ether will take care of the kidneys ; the digitalis and strychniæ will take charge of the heart ; the gentian and ginger will look after the appetite, and the carbonate ammonia and whiskey will act as a diffusible stimulant and expectorant.

If the case is complicated with pleurisy, and I can make the diagnosis, or even suspect a case of pleuro-pneumonia, I give them potassii iodide quite early in the disease. This I administer in one-drachm doses, and give it in their drinking water. I believe the alterative and absorbing properties of the potassium iodide prevents effusion and hastens resolution. This should be given between meals or feeds, and always well diluted. Then it does not interfere with digestion.

The most serious complications, such as pleurisy, pericarditis, meningitis, and laminitis, are hard to handle. I try to meet the indications and counter-indications as well as I can.

My experience teaches me that most all those cases die. But in cases of pneumonia, simple or double, even slightly complicated with pleurisy, under good treatment and careful nursing, I think the prognosis is favorable. If the patient commences to take a little feed in about three, four or five days, a little grain, hay, green feed, etc., and the temperature hovers around 104° to 104.5° , pulse 60 to 72, good volume, and the patient begins to cough occasionally, I consider that my patient is doing well, and I expect him to make a good recovery. I sometimes get a well-marked case of pneumonia that lies down every night and sometimes during the day. They all recover. But when the temperature rises about the seventh, eighth or ninth day, and the pulse becomes fast, thready and wirey, and the patient refuses feed, suppressed cough, in fact simply grunts, stands in one corner, refuses to take the medicine, those are very unfavorable symptoms, and the probabilities are that you not only have a case of pneumonia, but pleuro-pneumonia, pericarditis, and the patient will soon succumb to the disease.

Under any and all treatment, I occasionally find a patient suffering with a very acute congestion of the lungs and pleura, the congestion being so acute and extensive that they bleed from the nostrils. This I consider a very grave symptom, and my experience teaches me that they invariably die, and in a very short time, 24 to 36 hours.

I was called about two weeks ago to see a good draft colt, six months old; temperature 107° , pulse almost imperceptible and very high. On auscultation, I found the patient had a very acute congestion of the lung and pleura, and it was so extensive that the colt bled from the nostrils. I considered this a very bad case and expected that it would die. I gave it my usual treatment. It was in the evening, and the colt perspired freely during the night, and by the next day the epistaxis ceased, the temperature dropped, the pulse became stronger, the colt began to take a little feed. It passed through the second stage, and when the crisis came resolution set in, and a few days ago I discharged my patient.

Gentlemen, I have given you my actual experience and best judgment for the treatment of pneumonia. I sincerely request you not to be charitable in your criticisms and only hope you will offer many valuable suggestions.

REMARKABLE POST-MORTEM FINDINGS (?) (!).—The following extract from the Colorado Springs *Gazette* of June 5 is enough to take one's breath: "A post-mortem examination of the body of 'Gold Standard,' the racing horse that died at the Roswell track on Friday, revealed the fact yesterday that the horse did not die of gastritis, as was at first supposed. The examination made yesterday led the doctors to believe that the horse died as a result of the windstorm that swept down the track during the race in which 'Gold Standard' competed. There was a heavy clot of blood found in the left ventricle of the horse, and the theory of the doctors now is that the great exertion put forth by the horse in rounding the north end of the track, dead against a violent wind, caused its nostrils to admit such a blast of air that the blood was driven from the horse's head and extremities generally to the heart, where it stopped and formed the clot that impeded circulation and caused death to result. The case is one of the most interesting on record."

IMPROVING THE MILK SUPPLY IN BROOKLYN.—Last winter a movement was set on foot by the Kings County Medical Society to obtain at least a small supply of comparatively good milk which Brooklyn physicians could prescribe for their patients. Several joint meetings of members of the society and large milk dealers were held, and an agreement was reached by which the medical association was to conduct analytical examinations of the milk from certain dairies at regular and frequent intervals, and to furnish label certificates which were to be affixed to sealed bottles which contained milk in which the proportion of bacteria did not exceed thirty thousand to a cubic centimetre of milk. During May the number of these organisms found in some samples of milk was 7,000,000 to a cubic centimetre. In March there were 11,000,000 bacteria to the cubic centimetre, and 43,000,000 were found in a cubic centimetre of one sample of milk that was recently examined. This milk was not sour, and it was on sale in a grocer's store.

THE "SPECIAL VETERINARY TRAIN" over the Chicago, Milwaukee and St. Paul Railway, chartered by Drs. Hughes and Baker, leaves Chicago on the evening of Sept. 1.

ABORTION IN COWS.

BY WALTER S. PHILLIPS, V. S., READING, PA.

Presented at the Annual Meeting of the Pennsylvania State Veterinary Medical Association, March 4 and 5, 1902.

Abortion is an affection which, when it once affects the farmer's or dairyman's herd, causes much vexation and loss.

Abortion so-called, when the foetus or ovum is expelled four or six weeks before the normal period; premature birth occurs when the foetus is advanced enough to live when outside of the mother. Mares are also subject to it, but very rarely.

I notice a great veterinarian has said that abortion is a disease of nervous origin—a loss of equilibrium between the nerves of voluntary and involuntary motion. The direct causes of this state exist in anything that can derange the organs of digestion. Great sympathy is known to exist between the organs of generation and the stomach; if the latter be deranged, the former feels a corresponding influence, and the sympathetic nerves are the media by which the change takes place.

Emanations from putrid animal remains, miasmata, over feeding, derangement of the stomach, stimulating powders containing demulcents and diuretics, blows, excitement, injuries, musty fodder, indigestible food; a low condition of plethora may cause it.

I was called several months ago to a dairy where from twenty to thirty cows (Holstein) are kept, no less than eight or ten cows.

At the last previous visit I found a young bull in the midst of the herd of cows; also an older bull; the younger animal teasing and exciting one cow, then another. I witnessed this, and advised the owner to remove them—to tie up the young animal. This remedied the evil. Have had stagnant pools removed or filled up, which were in the barn yard, and caused abortion for years. After the removal of these pools, the cattle improved right along.

Will relate a case of abortion in a fine setter bitch. The

owner explained the case to me, which occurred about the holidays. Could not account for it; the loss of pups grieved him, being valuable. No bad odors, no slaughter-house near, nothing to occasion it being detectable. Questioned him, and said: "I suppose you killed a turkey." He said: "Yes, just the day before the loss of the pups." I also asked him, if the animal was present at the time? "Yes, licked up some of the blood, took head of turkey in her mouth, appeared very much excited; running up and down the yard. Next day appeared to have some irritation of the vagina, and in a few hours more gave birth to her pups." I think this case worth mentioning.

Preventives.—Isolation, disinfectants and fumigants. Give daily a preparation to each cow with calf, for four or five days. In the majority of cases the placenta must be removed.

HÆMOSTATIC ACTION OF INTRAVENOUS INJECTIONS OF CALCIUM CHLORIDE.—Dr. T. Silvestri (*Gazzetta degli Ospedali e delle Cliniche*, April 13th) recommends the intravenous injection of calcium chloride in the treatment of internal hæmorrhages from various sources. The basis of his therapeutic experiments was the work of Sicard, who showed *in vitro* that calcium chloride had the property of increasing the coagulability of blood in cases in which this process was regarded as absent through a deficiency in fibrin-ferment. He employed these injections in four cases. In the first of these, a profuse menorrhagia ceased within three-quarters of an hour after the injection of 150 cubic centimetres of a sterilized solution of calcium chloride of one-per-cent. strength. A second injection of 100 cc. was given, though the profuse flow did not recur. In the second case, a typhoid ulcer ceased to bleed within thirty-five minutes after the injection of 100 cc. In the third case a very profuse pulmonary hæmorrhage in a case of tuberculosis ceased within an hour after the injection of 150 c.c. The author saw the fourth patient after he had suffered from nosebleed for twelve hours. The nose was tamponed and 100 c.c. of the solution were injected. As the hæmorrhage did not cease, a second injection of 150 c.c. was given, effecting the cessation of the bleeding in forty minutes. The median basilic vein was used as the site of the injection and the usual technics was employed. The author believes that calcium chloride is superior to gelatin.

PERITONEAL FILARIASIS OF THE OX.

BY JOHN J. REPP, V. M. D., PROF. OF PATHOLOGY, IOWA STATE COLLEGE, AMES, IOWA.

On several occasions within the past few years I have come into contact with a species of filaria in the peritoneal cavity of cattle. This I have especially noticed in spaying heifers. Some time ago some of these worms were sent to me from an abattoir at Sioux City, Iowa, by an inspector of the U. S. Bureau of Animal Industry for the purpose of identification. I was able to identify this parasite as the *Filaria cervina* (Dujardin). For the purpose of identification I would advise the use of a combination having about the power of a 1-6 or 1-8 B. and L. objective and 1 inch ocular. The anterior and the posterior extremity of the worm may be clipped off with the scissors, mounted on a slide in water, and a cover glass put on. By proper regulation of the light the differential characters may be made out quite readily. It is the male which presents the specific distinguishing features. The fragment of worm must be rotated so as to bring these parts into view. This can easily be done by sliding the cover slip gently in a direction at right angles to the object.

Neuman states that these worms do not play a pathologic rôle. My own observations support this view.

WHAT IS PURE CHLOROFORM?—Thomas D. Luke, M. R. C. S. (*Edinburgh Medical Journal*, June), deals with this subject in a practical manner. He concerns himself more especially with the alcohol factor in the chloroform. This may be pure ethyl alcohol, which has never been anything but pure ethyl alcohol, or it may be methyl alcohol, so dealt with and purified, either before or after the process of chloroform-making begins that it is to all intents and purposes ethyl alcohol freed from methylic impurity. The author considers that even if we employ chloroform prepared from methyl alcohol only partially rectified, it seems highly questionable if the methylic impurity would cause any trouble. He concludes that methylated chloroform manufactured from methylated spirit is as good, as pure, and as safe, as "pure chloroform" prepared from pure alcohol.

REPORTS OF CASES.

"Careful observation makes a skillful practitioner, but his skill dies with him. By recording his observations, he adds to the knowledge of his profession, and assists by his facts in building up the solid edifice of pathological science."

HABITUAL LUXATION OF THE PATELLA AND ITS CURE BY DIVISION OF THE INTERNAL STRAIGHT LIGAMENT.

By J. A. ANGLICKER AND WM. SCHUMACHER, Milwaukee, Wis.

On June 6th a twelve-year-old Shetland pony was brought to us afflicted with habitual luxation of the patella of both legs. The animal, formerly owned by a circus, is a trick pony, and may have contracted the lesion while performing the trick of sitting down with outstretched hind legs. The luxation would occur every time the animal moved after standing still, or when walking very slow, but not when walking fast or when trotting. The right leg appeared to be affected more than the left, and the luxation could be produced at will, but through two days of observation the luxation of the left patella was seen only once. The present owner, who values the pony very highly on account of its tricks and it being an excellent saddler and driver for children, wanted a sure cure or none at all, and we decided to perform the operation mentioned in "Moeller's Surgery," attributed to Violet, Santo, Cavallari and Guigas, and which was also described in the AMERICAN VETERINARY REVIEW of June, 1901, page 221, by Gamba, who refers to it as "Bassi's operation."

After casting the animal, we decided on an open operation, because we could not find a way to secure the leg properly, also because the animal is very small and the ligament was only located with difficulty; so we untied the leg, allowed it to drop into its natural position and held it there by two guy-ropes. The field of operation was then cocained, shaved and thoroughly disinfected, the internal straight ligament laid bare by an incision one inch long and right over the ligament; a grooved director passed over the capsular and beneath and around the internal straight ligament and the latter divided with a pointed bistoury. The wound was then rendered aseptic and closed with one stitch. The luxation did not recur after the animal got up and the patient was then turned into a clean grass lot. A marked œdema made its appearance the next day below the field of operation, but passed away and the wound healed by

first intention. In the between time the left patella would frequently become dislocated, and on June 15th we performed the operation on the left side by the same method. This second wound became infected in spite of our precautions, probably because the flies troubled the patient very much on the shaved spot, and he used his tail freely in trying to keep the tormenters away. The wound healed in two weeks with no other care but daily washing with warm water. The animal is without a fault to-day, and its owner is greatly pleased.

In large horses chloroform narcosis would probably be advisable, as the operation seems comparatively easy when the leg is not restrained, and can be extended and flexed to suit the operator; also because the danger of puncturing the synovial capsule by a sudden jerk of the leg of animal is greatly minimized.

We recommend this operation to the profession because its success is very remarkable in the upward luxation of the patella of the horse, and it should prove very remunerative, because there are many horses afflicted with this lesion in the country who are almost valueless on this account. All we ask is that those brother veterinarians that perform the operation hereafter will report in these columns their observations and conclusions.

A PECULIAR CASE OF TETANUS.

By WILHELM SCHUMACHER, M. D. V., Milwaukee, Wis.

Was called in the evening of May 21st to see a bay horse, about 15 years old. History: The horse had been driven very hard the day before, came home very stiff, but was eating well. Symptoms: Usual attitude of hind legs of a horse sick with tetanus, muscles of back hard, but the animal manages to use its tail, head extended, nostrils wide open, elevation of membrana nictitans absent and not producible by any means. Temperature 101°, pulse 54 (dicrotic), respiration 24. Told the owner that the horse presented symptoms of lockjaw, but that I would call next morning to verify my diagnosis by daylight. Saw the animal next morning and was informed by the attendant that it was apparently better; had taken its food as usual, the bowels had moved freely and that it was rather lively. Examination showed the peculiar position of the hind limbs (which the owner claimed the horse always had), muscles of the back not quite as hard as night before; the animal used the tail freely to chase flies, neck still extended, elevation of membrana nictitans absent and not producible. Temperature 101, pulse 50

(dicrotic), respiration 30. Watery discharge from nostrils and eyes; pressure on larynx causes violent and prolonged coughing. Another careful examination of the animal did not bring out any new points; no wounds could be found, and I was thoroughly puzzled as to the right diagnosis, but told the owner that the horse was suffering from tetanus and also from a severe laryngitis. The owner did not agree with me on the tetanus theory; said that he had lost seven horses with tetanus in one year, and that he knew the disease when he saw it. He would not submit the animal to any treatment, as it was not valuable enough, besides he had never seen a cure from tetanus. The horse had been previously treated for a heart affection, and he asked for another bottle of heart tonic, which was given and administered to the horse for four days. The case having roused my curiosity I made a call next day and found the animal improved, with no other symptoms than a stiffness of the back and the coughing spells. Two days later the horse seemed well and the owner concluded to give him a rest by turning him into pasture. I advised to keep him in for another week, as the weather was rather unfavorable.

June 2d the owner came to our office and reported that the horse took sick the night before, became very stiff, was found down next morning with all the symptoms of tetanus, and ordered destroyed by the owner.

In talking over the case with the owner he remembered that the horse had calked himself on the hind foot about two months previous, and that the wound had healed without any complications. My theory is that the whole stable is infected with the *bacillus tetani*, that the attack resulted from the wound received in the stable, and I report this case because of its peculiar and confusing symptoms and course.

DYSTOKIA DUE TO RELAXED MUSCLES (?)

By D. C. NOWELS, V. S., Rockwell City, Iowa.

Subject, eight-year-old draft mare, in foal. I was called June 26; patient had been in labor twelve hours. Care-taker had made manual examination and could not find foetus, and said there was an immense bulging of abdomen below the ribs. From description I suspected extra-uterine pregnancy.

I made manual examination; found the os not dilated, proceeded to dilate it with my hand; found the foetus within the uterus and low in abdomen; anterior presentation; foetus on its back, the head deviated to the left and downward. I rup-

tured the membrane, secured the anterior limbs with cords, then used the repeller, and brought up the head; rotated the foetus, and a live foal was delivered without further trouble (by traction).

Both dam and foal were doing well at last reports, but from appearance all the abdominal viscerae of dam seem to hang below the ribs and at time of foaling dam seemed to have no power to throw foetus up into inlet, as if the abdominal muscles were torn loose; and the hair was worn away from a large area where the pelvic limbs rubbed against abdomen in progression, as if this condition had obtained for some time.

Is this a common occurrence? I find no literature on such a condition.

Would you advise the Italian operation for luxation of patella?

[NOTE.—In reference to last question, refer correspondent to article in this number, "Habitual Luxation of the Patella and Its Cure by Division of the Internal Straight Ligament," by Drs. Anglicker and Schumacher, department "Reports of Cases."—EDITOR.]

POISONING BY FEEDING ON SINAPIS NIGRA.

By F. J. ROUB, D. V. S., Monroe, Wis.

November 23, 1901, 1 P. M., I was called up at my residence by 'phone, by a Mr. Lawver, living twelve miles west, to come at once, very sick cows. I informed Mr. Lawver that I could not comply with his wish before evening, as there were two calls for my services just previous to his call; he stating that if I could not come by 5 P. M., not to come at all, and very little did I care to make the visit at all, for I knew he was in the habit of patronizing empirics, and defiant with qualified practitioners. After making the two calls previous to Mr. Lawver's, and having ample time to arrive at his farm by 5 P. M., I concluded to go. On arrival, you can imagine my surprise: in front of the barn lay ten cadavers, minus their epidermises, and one cow in the barn in its last throes of death, and seven cows that were very sick. Being informed by the owner that all of them would die, for the symptoms were in unison with the ones that had died—this being the owner's prognosis, not mine. All being milk cows, highly fed in order to produce greater profits by a large flow of milk, they showed better care than the majority of cows receive. After taking in the surroundings, and

considering everything in a good hygienic condition, being at a loss as to what the cause originated from, I asked the owner for information in regard to feeding, watering and change of pasture. The owner stated as follows: "I stable them nights, feed clover hay with a ration of ground feed night and morning, turn them out mornings, feed shock corn in yard, the remainder of the time run at large over the farm." Bear in mind, Nov. 23, at 5 P. M., I arrived at Mr. Lawver's farm, but the day previous, the 22nd, at 3 P. M., these cows were turned into a small lot, about 4 acres, situated on river bottom, between the barn and river, lot being utilized to raise corn for early feed in autumn. After the corn was cut off, mustard grew up in abundance, and as there had been no stock allowed to run on this lot previous to Nov. 22, owner thought he would turn his cows in and let them pick up what rough feed there was left, cows being in from 3 P. M. until 5 P. M., only two hours, then being housed in the barn for the night, given their evening ration; all of them feeding normally. Three hours later, he noticed four of the cows being sick; owner sending at once for an Illinois empiric. As near as I could learn, his treatment was hot teas, coffee, monkshood, Ward's liniment and painkiller. As more of the herd continued to get sick, and by midnight two had died, the "doctor," if I may call him such, declined to give further treatment, departing for home, leaving owner alone to battle with the afflicted cows.

The cows continued to get sick, one after another, and so they continued to die at intervals, from one to two hours apart. As I stated before, this being on the 22d, and I was called on the 23d at 1 P. M., but did not arrive at destination until 5 P. M., ten cows dead and the eleventh one dying, and seven more sick, and seemingly going in the same channel.

At this point I became very anxious to find the real cause, anticipating that holding an autopsy on the two cows that died just previous to my arrival, might reveal to me the much-desired information. Proceeding with the autopsy, dissecting through into the viscerae, there was an abundance of yellow fluid in the abdominal cavity, and very strong fumes of mustard being present. Speaking of this to the owner, he informed me that mustard grew up in abundance in this lot; and that he noticed the cows eating it and seemed to relish the same. Continuing with the autopsy, there being from three to four gallons of this yellow fluid in the abdominal cavity; bladder full and of same color; over the walls of the rumen following blood-

vessels and lymphatics there was a yellow gelatinous mass, varying from one to three inches thick; the intestinal tract showed a slight enteric condition. On opening the rumen, I found from one peck to half a bushel of mustard stocks and leaves. Satisfying my own mind that the trouble was due to mustard poisoning, I turned my attention to the seven head in barn that were sick.

The owner's prognosis was that all would die. My prognosis was zero.

Cows standing, dull, haggard expression; extremities cold; some tympany; respirations labored; could not be made to move, only by main force, then they would stagger and fall unless supported, showing that locomotion was greatly interfered with; when fatal would stand in one position without moving, until they would fall and lie in a semi-comatose condition, from one to three hours before death.

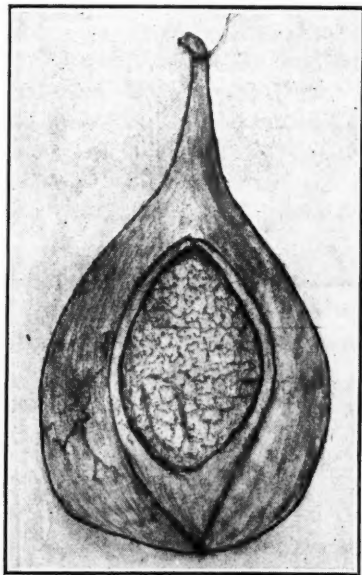
Treatment.—I ordered one and one-half lbs. of sulphate of soda given to each one of the sick cows, and to follow up with one lb. every twelve hours, until the bowels moved; in addition I gave nux vomica and spirits nitre. The seven head under this treatment made a fine recovery, and regained the normal flow of milk.

AN EXTRAORDINARY VESICLE CALCULUS IN A FRENCH BULL BITCH.

By ROSCOE R. BELL, D. V. S., Brooklyn, N. Y.

The subject was a valuable French bull bitch, purchased at the New York Dog Show for a fancy price, two years ago, when she was three years old. She weighed in health about 40 lbs., and was always full of life and very affectionate. Until two weeks before her death, she was apparently well. The first symptoms observed by the household were frequent urination, and an offensive odor from the urine. Her appetite remained good for a week after these symptoms were first noticed; but when she remained in her basket, partaking only daintily of her food, my services were sought. I found that not only was the urine very offensive, but it contained pus and blood. An external examination by manipulation was made and a hard, round substance could be felt through the abdominal walls, in about the location of the bladder. As the outlines were those of the size of a goose-egg, I could not believe that a calculus was the object, and as the patient was already in a septic condition, I informed the owner that her dog was in a desperate condition,

and that immediate surgical interference held out the only hope of benefit. As I was extremely busy with equine patients, I advised her to take the dog to a hospital, and gave her a note to a well-known specialist, who thought that an operation would not save the animal. Not being willing to submit her pet to useless pain, she brought the animal back to my kennels, where she died the following day from septic infection.



I was permitted to hold an autopsy, and found the bladder completely filled with a single calculus, it being so large that the walls of the bladder were stretched to their utmost, and considerably thickened, the mucous membrane being inflamed and partially necrotic. The urine would trickle through the ureteral openings, pass around the calculus through little grooves, and out of the urethra almost continuously. When the front wall of the bladder was incised longitudinally, the edges retracted at once, as shown in the accompanying rough drawing, showing the great tension upon the organ. I have never removed the calculus, but keep it preserved in alcohol, just as shown.

PROTARGOL IN VETERINARY SURGERY.

By W. E. A. WYMAN, Portland, Mich.

While testing protargol, about a year ago, with a view to

studying its proper place in surgical diseases, a number of important and valuable features—its continuous bactericidal action, its powers as a desiccant, its superiority as a cicatrizing—became well established. The Farbenfabriken of Elberfeld Co., 40 Stone St., New York, very kindly placed an inexhaustive supply at the disposition of the writer. A lengthy report of its various uses has just begun to appear in the *Journal of Comparative Medicine and Veterinary Archives*.

About fourteen days ago the writer treated a case with protargol, which seems to warrant special mention :

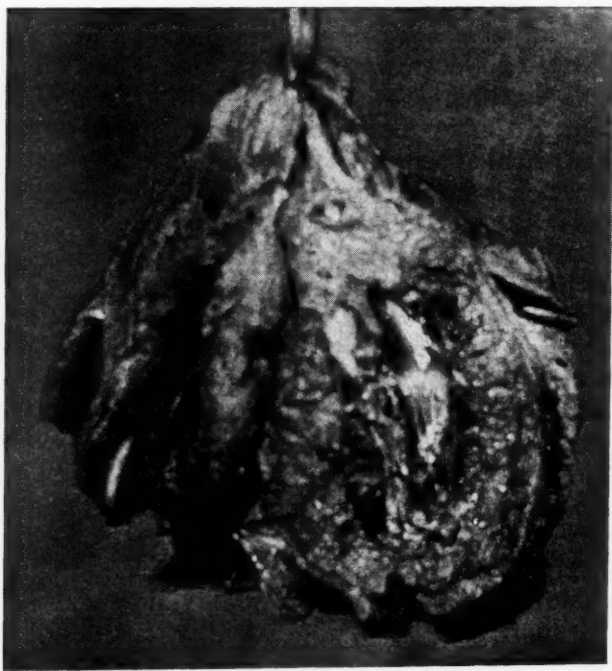
Gray mare, 11 years old, 1350 lbs., sound. In the morning her right eye was punctured by a dry twig, which on breaking off remained in the eye. Site of puncture, at union of superior border of sclerotic and cornea. Conjunctiva decidedly œdematous, bulging from the cavity about one inch. The animal was first seen about 3 P. M. that day. On removal of the dry piece of wood, which was about one-quarter inch in diameter, and had entered the eye about three-quarters of an inch deep, a gush of blood, coagula and prolapsus of the iris followed.

The whole eyeball, conjunctiva and eyelids were thoroughly irrigated for some time with a $\frac{1}{2}$ per cent. carbolic acid solution. Next the protruding iris was snipped off. Now, a 15 per cent. protargol solution was repeatedly and gently injected through the wound into the eye. The œdematous conjunctiva was punctured in numerous places with a needle. All parts were irrigated once more with the carbolized solution and a pressure bandage kept moist with 1 per cent. protargol solution applied. During the five days that this animal was in the hospital no rise of temperature occurred, appetite good ; in fact, her general health was perfect.

As a matter of curiosity, the writer removed the dressing in 24 hours. Œdema of the conjunctiva entirely gone ; slight inflammation of the cornea. On the 5th day the animal went home. A calomel dusting powder was given, and, outside of a limited nebula at the site of puncture, a complete recovery was obtained.

A RECORD TUBERCULOUS HEART.

Don C. Ayer, D. V. S., Chief Inspector of the Bureau of Animal Industry at Omaha, Neb., sends the REVIEW the accompanying photograph of a specimen which came under his observation recently in one of the slaughter-houses in his jurisdiction. He furnishes the following description :



"Heart of a Cow Affected with Tuberculosis.—Weight, 44 lbs. Lungs and liver showed infection, as well as all lymphatics, but not so extensively as others I have seen where the heart was not infected."

Dr. Ayer also adds: "Please have this set properly. Take the May number of the REVIEW, for example; turn to page 144, where the tuberculous liver is shown; now turn the book upside down and see how much it will improve the appearance of the specimen."

THE members of the Veterinary Medical Association of New Jersey presented President Wm. Herbert Lowe with an elegant silver dinner service, at the banquet on the 10th ult., as a token of appreciation for his great service to the profession of the State, in having united a scattered and dissenting profession into a strong band of enthusiastic brethren, and throwing around them the strong protecting arm of the law. No recipient was ever more worthy of such a token, nor are there any who could more thoroughly appreciate the missive of grateful esteem.

EXTRACTS FROM EXCHANGES.

ENGLISH REVIEW.

By Prof. A. LIAUTARD, M. D., V. M.

A CASE PRESENTING SOME FEATURES OF HERMAPHRODITISM [*Henry Taylor, M. R. C. V. S.*].—The subject is a brown van cob, observed by the author, which presented very peculiar abnormalities in the sexual organs. The animal presented parts of the generative apparatus of both sexes, viz., a miniature penis (not in the regular position, however) mammary glands and testicles. The penis was placed at the lower part of the perineal region, pointing backwards and downwards. It projected in the natural state about three or four inches from the perineum, and could be withdrawn about two inches more from a structure which might be called the prepuce. The urethral opening was well marked, and was situated nearer to the superior surface than to the inferior. The glans penis was also quite distinct. There were two mammary glands in the normal position, with well-marked lactiferous ducts. The testicles were felt well up in the groin, but hardly as tense as normal. Although there was no vulva, there was a distinct invagination of the skin, incomplete, without mucous lining or anterior orifice. At its lower aspect was the supposed penis. This might be called an abnormally developed clitoris, but it was pierced by the urethra, which is not the case in an over-developed clitoris, and was situated some four or five inches lower than the ordinary position of the clitoris. The exact location of this case in teratology is not clear to the author's mind, and it is recorded only as offering some features of hermaphroditism.—(*Vet. Jour.*) [An exact counterpart of this case was exhibited at Coney Island and throughout New York City and its suburbs ten or twelve years ago, and was examined by most of the local veterinarians of that date. The animal was killed by a live trolley-wire during the street railway strike of 1895 or 96, and is now the subject of a lawsuit against the railway company by the owner of the monstrosity, Wm. Krug, of Seventeenth Street, Brooklyn, and the writer has been subpoenaed as an expert witness.—R. R. B.].

TUMOR IN A COW'S MOUTH [*W. Owen Williams, F. R. C. V. S.*].—The nature of this growth and the rarity of its location make this record very interesting. It relates to the history of a

cow which a few weeks before calving was observed to have difficulty in feeding and chewing her cud ; she was also unable to protrude her tongue. As a consequence, she soon lost condition, and an examination of the mouth revealed the presence of a tumor of considerable size, growing from the gum and involving the first four molar teeth. After waiting until she had calved, the cow was then cast, and on examining the mouth, the tumor was found somewhat pedunculated, having a short, thick stalk, and the mass pressing against the palate. With a kind of ecraseur made of wires it was removed, but not without some difficulty, as the wires broke twice before the tumor was gotten loose and brought out. The molars were also extracted. The hæmorrhage was slight. The tumor weighed 10 ounces, and was of actinomycotic nature. Three weeks after the operation, it was again growing.—(*Vet. Journ.*)

FRACTURE OF THE FIRST RIB [*James McKenny, M. R. C. V. S.*].—This lesion is the subject of a very interesting record by the author, where after mentioning the symptoms, which by some are considered as belonging to that kind of injury, viz., elbow dropped, knee protruding and flexed, fetlock knuckled and toe of foot only on the ground ; Mr. J. McK. remarks that also for others those symptoms are common to other injuries, such as laceration of the triceps muscles, fractured scapula, pisiform bone or navicular bone. For the author the differential diagnosis of all those injuries from that of fractured rib, which all produced the symptomatology of dropped elbow, etc., is comparatively easy—"In case of injured triceps there is local heat, swelling and pain without crepitus ; with fractured scapula this is easily detected and localized by moving the leg forwards and backwards, inwards and outwards, but if the crepitus is obtained on abduction and adduction of the fore-leg on the affected side, which cannot be localized and cannot be obtained on bringing the leg backwards and forwards, the first rib is broken. Again when the pisiform is injured, the swelling of the back of the knee and its manipulations decide the nature of the injury ; for navicular bone broken, the history of the case, alteration of the foot, the heat, the pain, etc. are sufficient evidences. Conclusions : Fracture of the first rib can be made out by detection of the crepitus only by crossing the fore-leg near the affected rib as far as possible across the front of the sternum and then jerking it outwards (abduction and adduction) ; the crepitus thus obtained will be readily felt when the hand during the process is kept firmly on the scapula ; it will be dull and of

course cannot be localized to any part of the scapula. It will also be absent when the leg is moved backwards and forwards." The author records several cases in support of his statement. One of rupture of the triceps muscle, one of lacerated muscle and fractured lumbar vertebræ, of fractured pisiform and fractured navicular, with four others of fractured first rib, where the differential diagnosis had proved correct.—(*Veterinarian*.)

GASTROTOMY IN THE DOG [*F. Hopkin, M. R. C. V. S.*].—Dogs may eat sweets, but must be careful of iron balls. A cross-bred Airedale terrier had sweets thrown to him, which he enjoyed and swallowed. An iron ball also thrown was swallowed, but could not be removed by castor oil. It is reported that he showed shortly after "marked signs of paralysis in the hind quarters and was also affected with chorea about the muscles of the face;" at any rate, whether these were the results of the presence of the iron ball or not, an operation was decided upon, and gastrotomy performed antiseptically, of course. Through an incision of the median line, the foreign body was easily made out, but it was with difficulty that it could be brought into such a position to be easily removed by incision of the stomach. This was afterwards sutured with gut stitches, also the muscles and peritoneum. The skin was sewed with silk. Rectal injections of milk and brandy were given for seven days and followed with Mellin's food per mouth for a few days after. The ball weighed 4 ounces. Recovery was perfect, except he still had chorea.—(*Veterinarian*.)

TUBERCULIN FOR DOG [*E. H. Kent, M. R. C. V. S.*].—From an article on tuberculin and its use, I find the record made by the author of the use of tuberculin in three cases, where most satisfactory results were obtained. A fox terrier bitch, on account of peculiar suspicious symptoms, had an injection of 2 minims of tuberculin, when the temperature, being 102.6° at 9 A. M., went to 104° at 11, 105.4° at 1 P. M., 105.4° at 5 P. M.; 104.6° at 9 P. M. Next morning it was 103.2° . At post-mortem she showed tuberculosis of the liver, kidneys and lungs. A retriever sick since two years received 3 minims of tuberculin one morning when his temperature was 102.2° . At 9 A. M. it was 102.2° , at 11 A. M. 103.8° , at 1 P. M. 105.8° , at 5 P. M. 105.6° , 7 P. M. 105.2° . The next morning it was down to 103° . Tested a second time after a few days, the result was the same. On post-mortem, general tuberculosis was found, lungs and pleura more affected. The third case was a five-year-old fox terrier, which had been wasting for six months. His temperature was

102°. 2 minims of tuberculin being injected, the temperature did not show the same reaction, although it rose some. The dog died the next day. The suspicion of tuberculosis was not confirmed at the post-mortem, as instead of phthisic lesions, the cause of the animal's sickness was found in his stomach. This contained five pennies, which "no doubt caused the state of congestion of the organ."—(*Veterinarian*.)

OÖPHORECTOMY AND ACCIDENTAL CYSTOTOMY [*F. H. Ridler, M. R. C. V. S., and T. Hobday, F. R. C. V. S.*].—This concisely recorded case is to point to the possibility of an accident which may occur in small animals when submitted to that operation. It relates to a female cat which, being about to be operated upon, when after preparation of the abdominal wall by cleaning, shaving and careful asepsy, at the time that the skin was incised the point of the scalpel entered the much-distended bladder and made a wound in it fully half an inch long. By careful attention the greatest part of the contents escaped outside of the body. The wound was closed with sterilized silk as best the condition permitted. Thorough sterilization was accomplished. The bladder returned into its place. The peritoneum cleaned with chinosol solution and the abdominal walls closed with a double row of silk-woven gut sutures and the whole covered with iodoform colloid. Recovery was perfect without the slightest complication.—(*Veterinarian*.)

CEREBRAL TUMORS IN A HORSE [*W. Scott, F. R. C. V. S.*].—An old cart horse, looking well in condition, and having always done his work well, after heavy hard work during a very hot day, showed symptoms of cerebral disease well marked: "he was beating himself against the walls of his box, staggered in a helpless manner, bore his head into a corner and pushed against the walls," etc., etc. Examination of the eye with the ophthalmoscope revealed the retinal vessels engorged with blood. Pupil at times contracted and again dilated. Relieved once of this attack, he had another a few months after, of which he died. At the post-mortem the cranium was found to contain about 3 ounces of clear serum. The surfaces of the meninges looked healthy. In both lateral ventricles there was found an oval neoplasm, about the size of a small potato, imbedded in a sero-sanguineous fluid. One being a little bigger than the other, they weighed together $5\frac{3}{4}$ ounces. They were somewhat hard in consistency but smooth; upon section they grated against the knife. They were pinkish in color. Microscopically they were made up largely of coarse straight bars and

strands of fibrous tissue, which were arranged in a more or less radiate manner. Scattered through the tumors were numerous crystals of degenerate blood pigment. In parts the neoplasms were very cellular, the arrangement and character of the cells suggesting sarcoma.—(*Veterinarian.*)

THE estimated earnings of American jockeys abroad this season thus far, is \$341,000.

HENRY WARD BEECHER'S TRIBUTE TO THE HORSE.—Society owes to the horse a debt of gratitude a thousand times greater than it does to thousands of men who abuse him. He has ministered to progress, has made social intercourse possible when otherwise it would have been slow, or occasional, or altogether impossible; he has virtually extended the strength of man, augmented his speed, doubled his time, decreased his burdens and, becoming his slave, has relieved him from drudgery and made him free. For love's sake, for the sake of social life, for eminent moral reasons, the horse needs to be bred, trained and cared for with scrupulous care.

NONE of the race tracks in America or Europe can compare with the magnificent equipments of the track at Koudan, Japan. It is about a third of a mile in circumference, and all the way around are rows of splendid stone trimmings, such as ponderous lamps and posts, railings and the like, which make up for the absence of the grandstand. This track is purely Japanese, and as such is more of a novelty, than either of the famous tracks of the country, one at Ueno Park, Tokio, and the other near Yokohama.—(*Horse-Shoers' Journal.*)

FACTS ABOUT LONDON.—A child is born every three minutes; and a death is registered every five minutes. The city contains over 700 railway stations, nearly 800 miles of railway line, and 11 railway bridges span the Thames. Daily 1,000,000 persons travel on the underground railways, and 2,500,000 in 5,000 omnibuses, 7,000 hansoms, 14,000 cabs, and 7,000 tram-cars. The total population is between 6,000,000 and 7,000,000. Four thousand postmen deliver 10,000,000 letters weekly, walking a distance equal to twice the circumference of the globe. Sixty thousand letters are written a day, consuming 30 gallons of ink. Ten thousand miles of overhead telegraph wires almost shut out the smoky canopy which spreads above the London streets, and the number of telegraph messages received in London last year was over 6,000,000. Ninety million gallons of water are consumed daily.

BIBLIOGRAPHY.

TRAITÉ DES MALADIES DU BÉTAIL—(Treatise on Diseases of Cattle). By Prof. G. Moussu, of Alfort. 1 Vol., in 8vo of 772 pages and 189 figs., 4 colored plates. Asselin & Houzeaux, Paris.

Of course, books on diseases of cattle are plenty—German, English, French, and even American authors have published quite a number of them, and, yet, this new book is different from all others; it is one special in its kind; and why? Because it is conceived in a synthetical spirit, and is the *resumé* of the course taught by the Professor of Alfort for over ten years.

"It is written," says the author, "so as to be understood by all, and I have tried to make it as demonstrative as possible, certain that I am that education by the eye is superior to that which requires the work of interpretation of what is written."

And, indeed, Prof. M. has succeeded. For his work is full of original and ingenious articles on the etiology and nature of diseases. The groupings of diseases are perfectly rational, and each one is preceded by an *exposé* of the methods of exploration of the organs and of the semiology.

Successively apparatus after apparatus, organ after organ, are studied, and almost all the diseases that can affect bovines are considered. But not only that, animals of ovine, caprine and porcine species are also referred to. General contagious diseases, except tuberculosis, are ignored, and if even this last is considered it is more on account of its frequency in the different species than for any special purpose.

The work is divided into eleven classes; and each one in a certain number of chapters. In the first class, the apparatus of locomotion, with the diseases of bones of the foot, of articulations, muscles and their accessories, and closing with rheumatism. The second class has eleven chapters, with the diseases of the digestive apparatus. This contains a very interesting part relating to the various intoxications. The third class treats of respiratory diseases. The fourth considers the difficult diagnosis of cardiac affections, with those of the blood vessels, of the blood and of the lymphatics. The fifth contains the nervous troubles. The sixth has the affections of the peritoneum and the hernias. The seventh brings to the reader the genito-urinary diseases, so troublesome in males or females of those animals. In the eighth we find the most common skin diseases. Few of the diseases of the eyes fill the ninth chapter. In the

tenth we have the infectious diseases. The work is completed in the eleventh chapter by a concise consideration of surgery, for operations which are likely to be performed daily in practice.

The book is one which will prove of much use to the practitioners, and will give to those who will read it much practical information.

A. L.

DICTIONNAIRE VÉTÉRINAIRE (Veterinary Dictionary). By P. Cagny and H. J. Gobert. 2 large vol. in 8vo. of 1500 pages and 1800 plates, some in color. Vol. I. (A—H), octavo of 768 pages. Now for sale. Library of J. B. Baillière et Cie, 19 rue Hautefeuille, Paris.

The authors have rightly thought that, besides the classical works, due to professors of schools, there was room for a practical work, *scientific* without excess, which would put at the disposition of practitioners and students a *resumé* as exact as possible of actual knowledge, as well as of the indications of medical and surgical therapy sanctioned by experience.

The form of dictionary that they have adopted is the most convenient for a work including: anatomy, physiology, pathology, surgery, hygiene, sanitary medicine, jurisprudence, etc.; a form which, however, is justified by the desire to allow the practitioner to find at once the information he seeks.

To say that the new methods of Pasteur have had time to be appreciated and that they have proved their superiority, the time had arrived*to make a selection from among the materials disseminated in journals, publications, archives of scientific societies, to place at the disposition of all, who by profession or by taste, had in view the improvement and the health of animals.

MM. Cagny and Gobert have tried to make their dictionary a repertory truly on a level with the progress of science and of general practice, and which if needed takes the place of a complete library.

To do this they have resorted to the experiences of all the most known among the French authors—Chauveau, Nocard, Trasbot, Cadiot, Moussu, Barrier, of Alfort; Arloing, Peuch, Cadeac, of Lyon; Leclainche, Lalaunié, Neumann, of Toulouse, and many others in civil and military service. The recent works of several foreign veterinarians have also been called to contribute to the superiority of the whole work.

The addition of a very large number of plates, several of them colored, has rendered the explanation easier and their understanding more complete.

We have for a number of years looked for a similar work in

the English language. It is to be regretted that American veterinary literature should still be deficient in that, that American veterinary writers have not tried to fill the want, or that an American publisher cannot be found to assume the publication of a similar work, which we know is already prepared and complete.

A. L.

TIBIO-PERONEAL NEURECTOMY FOR THE RELIEF OF SPAVIN LAMENESS. By W. E. A. Wyman, V. S., M. D. V., author of "The Clinical Diagnosis of Lameness in the Horse," etc. New York: W. R. Jenkins, 851-853 Sixth Ave.

In a small pamphlet of 30 pages, Dr. Wyman takes up an operation which was introduced to the profession in 1898 by Prof. Bossi, and first performed in America, we believe, by Dr. Adolph Eichhorn, then house surgeon at the American Veterinary College. Since then various American surgeons have performed it, but probably none so extensively as Dr. Wyman, who reports ninety-one cases in his treatise. He first gives the history of the operation, the indications for its adoption, the surgical anatomy, the sites of resection of the posterior tibial and peroneal nerves; the technique of the operations, and the sequellæ. After the statistical table, details of each case are given, while the results are given as 55 complete removals of lameness, 18 leaving slight lameness, and 7 unknown. In the tibial wound 65 healed by first intention, while 40 had such good results in the peroneal. Muscular hernia followed eight times, exungulation three times, fatal septic infection once. Four cases remained lame; two fractures followed neurectomy.

Those who contemplate placing this operation in their *repertoire* should avail themselves of Dr. Wyman's extensive experience by securing this brochure.

R. R. B.

ANIMAL CASTRATION. By A. Liautard, M. D., V. M., Professor of Anatomy, etc., New York-American Veterinary College, Corresponding Member of the Société Centrale de Médecine Vétérinaire, etc. Ninth Edition, revised and enlarged. With 53 plates. New York: Wm. R. Jenkins, 851-853 Sixth Avenue.

This popular text-book, first issued in 1884, has reached its ninth edition, which has just emerged from the Jenkins press in a much more valuable form than ever, since many of the more modern methods of operation upon the principal procreative organs of both the male and female members of the various species of domestic animals have been added, bringing the work right up to date. The chapter, for instance, on abdominal and inguinal cryptorchidism has been entirely rewritten, while two American surgeons (Drs. T. B. Rogers and J. Elmer Ryder) have added articles on the spaying of small animals and the caponizing of roosters. Liautard's "Animal Castration" is too

well-known to the American veterinarian to require any extended analysis here; we simply announce that it has been added to wherever progress in the art of surgery has been made, so that one may feel when referring to it that he has secured the latest and best methods of the various procedures. R. R. B.

HORSE DOCTOR'S BARN BANQUET.



PHILADELPHIA, July 1.—(Spl.)—Graduates of the Veterinary Department of the University of Pennsylvania were banqueted in a barn last week.

The feast took place at 1336 North Marshall street, where Dr. J. J. Maher has a veterinary hospital. The long table was placed between two rows of stalls. On the floor was a foot of straw, and the stall posts were decorated with ribbons and flowers in the colors of the University of Pennsylvania.

Dr. Maher gave the banquet in honor of J. H. Zollinger, one of the graduates of the Veterinary Department of the University. The other guests were also the members of the class of 1902. At each cover of the 17 banqueters was a souvenir in the form of a toy horse or a toy dog, with beads for eyes. Ice cream was served. It came in shapes of horses, dogs and cows.—(*Cincinnati Post*.)

MICHIGAN has an anti-docking law, whereby all persons owning docked horses were required to register them prior to Dec. 6, 1901. It is also unlawful to bring a docked horse into the State, unless it be so registered. Fine for violation not less than \$50 nor more than \$250, in default of which imprisonment for not less than ninety days.

SOCIETY MEETINGS.

AMERICAN VETERINARY MEDICAL ASSOCIATION.

THIRTY-NINTH ANNUAL MEETING AT MINNEAPOLIS, MINN.,
SEPT. 2, 3 AND 4, 1902.

Headquarters—West Hotel, the Assembly Hall of which will be used for the convention.

Clinic—Veterinary Hospital, University of Minnesota, St. Anthony Park.

Banquet—Thursday 8 P. M., Hotel Del Otero, Spring Park.

Welcomes—His Excellency Governor R. S. Van Sant; the Mayor of Minneapolis, and Mr. W. G. Nye, Secretary of the Commercial Club.

Response—Dr. Roscoe R. Bell, of New York.

PAPERS TO BE OFFERED.

"The Veterinary Profession, Past, Present and Future," by Prof. D. McEachran, Montreal, Can.

"The Relationship of Veterinary Science to the Medical Profession," by Dr. D. King Smith, Toronto, Ont.

"Hospital Management of Dogs," by Dr. Charles Ellis, St. Louis, Mo.

"Sidebones," by Dr. J. S. Anderson, Seward, Neb.

"Pathogenesis of Equine Pneumonic Emphysema," by Dr. A. H. Baker, Chicago, Ill.

"Poisonous Stock Foods," by Dr. N. S. Mayo, Manhattan, Kans.

"Ictero-hæmaturia in Sheep," by Dr. M. E. Knowles, Helena, Mont.

"The Organization of State Veterinary Work," by Dr. Leonard Pearson, Philadelphia, Pa.

"Results of Strict Sanitary Regulations in Arizona," by Dr. J. C. Norton, Phoenix, Ariz.

"Malarial Fever in the Horse," by Dr. F. Torrance, Winnipeg, Man.

"External Ulcerative Ano-Vulvitis of Cattle," by Dr. J. J. Repp, Ames, Ia.

"The Care and Comfort of Domestic Animals under Varying Circumstances," by Dr. E. A. A. Grange, New York, N. Y.

"Hæmorrhagic Septicæmia in Cattle," by Dr. S. D. Brimhall, Minneapolis, Minn.

"Equine Periodic Ophthalmia," by Dr. M. Jacob, Knoxville, Tenn.

"Differential Diagnosis between Farcy, Furunculus and Bursatti," by Dr. C. C. Lyford, Minneapolis, Minn.

"Barrenness in Bovines," by Dr. Charles Schmitt, Dodgeville, Wis.

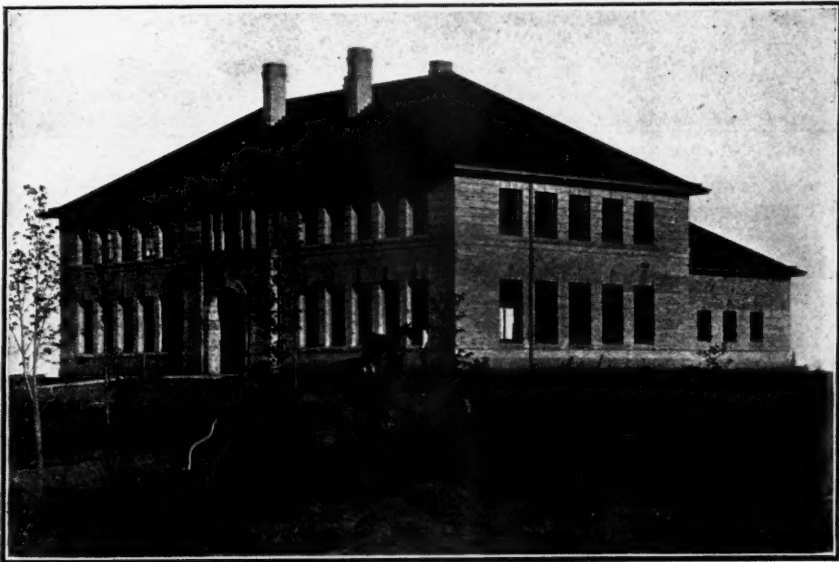
"So-called Contagious Ophthalmia in Cattle," by Dr. T. D. Hinebauch, Fargo, S. D.

"The Legitimate Field of the A. V. M. A.," by Dr. Roscoe R. Bell, Brooklyn, N. Y.

"The Life and Character of Dr. Rush Shippen Huidekoper," by Dr. W. Horace Hoskins, Philadelphia, Pa.

THE SURGICAL CLINIC.

The Local Committee was unable to furnish a definite statement in regard to clinical data, as is usually the case, since the material obtainable is not usually known so far in advance. However, Secretary Stewart states that Dr. J. S. Anderson, of Seward, Neb., will demonstrate his operation for the treatment



FRONT VIEW OF THE NEW \$25,000 VETERINARY BUILDING, UNIVERSITY OF MINNESOTA,
WHERE THE NEXT A. V. M. A. CLINIC WILL BE HELD (108 X 117 FEET).
STABLING IN THE REAR NOT SHOWN IN THIS VIEW.

of "Sidebones," Dr. Charles Schmitt, of Dodgeville, Wis., the "Treatment of Barrenness in Bovines," Dr. C. C. Lyford, of Minneapolis, the "Treatment of Bursal Enlargements." It is probable that as a part of the clinic there will be a display of operating tables, and their actual use demonstrated.



OPERATING ROOM, WHERE THE CLINIC WILL BE HELD. AMPLE SEATING CAPACITY AND UNOBSTRUCTED VIEW OF THE RING.

THE ENTERTAINMENT PROGRAMME.

The Local Committee of Arrangements have planned the following entertainment for the large number of members, ladies and visitors expected :

Tuesday.—Morning: Attendance at the meeting of the A. V. M. A. Afternoon: A visit to the State University grounds and buildings. Evening: An informal reception at the West Hotel, from 7.30 to 8.30.

Wednesday.—A trolley ride to Minnehaha Falls, Indian Mounds, and Como Park, St. Paul.

Thursday.—Morning: A visit to the largest flouring mill in the world and to one of the saw-mills in Minneapolis. Afternoon: A car-ride to Lake Minnetonka, a boat-ride on that beau-

tiful lake, and at 8 P. M. a banquet at Hotel Del Otero, Spring Park.

Friday.—Morning : A clinic at the University Farm. Afternoon and evening : Attendance at the Minnesota State Fair ; this being Minnesota Day, the races will be a special attraction owing to the large prizes offered.

HOTEL ACCOMMODATIONS.

The headquarters for the meeting will be at the West Hotel, which offers a rate of \$3 per day, American Plan. The Holmes makes a rate of \$2 and \$2.50 per day, and the St. James, \$2 per day. On the European Plan, the Hotel Hyser, rooms 75 cents to \$2.50 per day; Nicolett Hotel, \$1 per day and up; Russell Coffee House Co., 50 cents to \$1. Members and visitors are requested to write directly to the hotels for desired accommodations and to do so at once for the hotels are likely to be crowded, as the Minnesota State Fair which will be in progress at that time will attract large numbers to the city.

RATES AND RULES OF TRANSPORTATION.

All of the railway associations east of the Rocky Mountains have granted the usual excursion rate of $1\frac{1}{3}$ fare. The full fare to be paid going and $\frac{1}{3}$ fare return, providing the purchasers secure a certificate at the starting end of the journey. In the area south of St. Paul, extending from Chicago to St. Louis and Kansas City, there is a special excursion rate in force, less than one full fare for the round trip, the same beginning on September 1st and good for the return trip, to October 31st. Throughout the State of Minnesota an excursion rate will be in operation on account of the State Fair. The Canadian Pacific Railway System and the Grand Trunk Railway System will doubtless grant a $1\frac{1}{3}$ fare excursion rate, providing the Western Passenger Association will honor their certificates. We hope the Canadian railways may succeed, as it will encourage attendance from the several provinces.

FROM THE NEW ENGLAND STATES.

President Winchester is making an extra effort to bring out as strong a delegation from the New England States as possible, and has issued the following letter to the profession :

LAWRENCE, MASS., July 10th, 1902.

DEAR DOCTOR :—I trust the annual meeting of the American Veterinary Medical Association, held this year at Minneapolis, Minn., Sept.

2 to 5, will be a record-breaker in way of attendance and in the election of new members.

In order that the New England States may have a representation exceeding any past meeting, I take this means of bringing to your notice the most comfortable method of traveling, as well as the quickest service from New England.

Should you and seventeen others arrange to go together, we can have a special car to our destination.

The local committee of arrangements are planning many special features for the entertainment of all who come, more especially the ladies.

It is advisable that you secure your sleeping car berth to Minneapolis in advance, by applying to Mr. W. W. Hall, N. E. A., Chicago, Milwaukee and St. Paul Ry., 369 Washington Street, Boston. Should circumstances prevent your going, the money advanced for sleeping car accommodations will be cheerfully refunded.

The train will leave Boston, Saturday, Aug. 30th, at 2 P. M.; Worcester, 3.05 P. M.; Springfield, 4.29 P. M., over the Boston and Albany, New York Central, and Michigan Central Rys., arriving Chicago 4 P. M., Sunday, Aug. 31, connecting with the "Pioneer Limited" of the Chicago, Milwaukee and St. Paul Railway, leaving Chicago 6.30 P. M. Sunday Aug. 31, and reaching Minneapolis Monday, Sept. 1.

The total expense for the round trip, including berth and meals, will be \$67.70, as follows:

Rail ticket,	both ways	\$44.70
Berth in sleeping car, \$7.50 each way;	" "	15.00
Four meals in dining car, \$4 each way;	" "	8.00
		<hr/>
		\$67.70

From Worcester, deduct \$1.35 from round-trip ticket, and from Springfield deduct \$2.70.

Very truly yours,

J. F. WINCHESTER, *President.*

THE TRIP BY RAIL FROM THE EAST.

The majority of the Eastern veterinarians will journey to the convention by the Lehigh Valley to Buffalo, Grand Trunk to Chicago, thence by the Chicago, Milwaukee and St. Paul to Minneapolis. We have studied the routes of a number of roads, and believe the one mapped out here will insure the greatest diversity of scenery, comfort to travelers, and rapidity in reaching the convention city. We therefore give a short sketch of the route with time-table, so that those contemplating the trip may see the most salient features at a glance.

Leaving New York at 9.30 A. M., by the Lehigh Valley Railroad, which for natural beauty, for contrasted gentleness and severity of water and mountain character its course is unsurpassed; the road, after leaving Jersey City, runs westward across the State of New Jersey, crosses into Pennsylvania over the rocky gorge of the Delaware, and for about eighty miles follows the windings of the Lehigh river to the neighborhood

of White Haven, whence having scaled the mountains, it traverses the romantic Wyoming and Susquehanna valleys, and entering New York, finally fetches a circuit about the lovely lakes of that region to its termini at Buffalo and Niagara Falls, the entire distance between these extremes being about four hundred and sixty-three miles. Buffalo is reached at 9.45 P. M., if the day-light trip is taken over the Lehigh Valley, where only twenty minutes are spent, leaving there by the Grand Trunk Line at 10.05, where sleepers are taken, and the trip through Canada is made during the night, arriving at Chicago at 12.50 P. M. the next day.

Enough time will be spent in the Windy City for the tourist to see many of the points of interest, as the excursion over the C., M. and St. Paul railway will start for Minneapolis at 6.30 P. M. of that day. The country traversed by this road includes the prairies of Illinois, the diversity of landscape and the rounded hills of Iowa and Minnesota, the "Lake Region" of Wisconsin and the gorges, cliffs and wonderful formations of the famed "Dells" of the Wisconsin river, the picturesque and romantic scenery of the Mississippi, and the most important cities and towns of the Northwest are all included in one or another of its various direct routes between Chicago and the "Twin Cities." The comfort of the traveler is assured by its splendid roadbed and the fact that the most perfect and luxurious equipment known to modern travel is run over its lines. This schedule will land the delegate in Minneapolis at 8 A. M., after a run of ten and a half hours from Chicago.

TIME-TABLE FROM NEW YORK.

Leave New York,	via L. V. R. R.—		
foot West 23d St.,	" "	9.25 A. M.—	5.40 P. M.
" Desbrosses St.,	" "	9.30 "	5.40 "
" Cortlandt St.,	" "	9.30 "	5.40 "
Brooklyn.			
foot Fulton St.,	" "	9.15 "	5.15 "
" Newark,	" "	9.55 "	6.12 "
" Easton,	" "	11.25 "	8.60 "
" Philadelphia,	" P. & R.	8.30 "	5.39 "
" Allentown,	" L. V. R. R.	11.56 "	8.36 "
" Reading,	" P. & R.	10.15 "	6.00 "
" Harrisburg,	" "	8.00 "	
" Mauch Chunk,	" L. V. R. R.	12.43 P. M.	9.30 "
" Wilkesbarre,	" "	2.25 "	11.25 "
" Ithaca,	" "	5.55 "	
" Geneva,	" "	7.05 "	3.25 A. M.
Arrive Buffalo,	" "	9.45 "	5.50 "

Leave	"	" Grand Trunk	10.05	"	5.55	"
Arrive Chicago,		"	12.50	"	8.45	P. M.
Leave	"	" C.M.&St.P.Ry	6.30	"	10.30	"
Arrive Minneapolis		"	8.00 A. M.	12.01	noon	

RATE.—A reduced rate of one and one-third fare on the certificate plan has been granted for this occasion, which would be from New York to Minneapolis and return via the above routes \$39.35, and correspondingly low rates from intermediate points.

DATES OF SALE.—Tickets will be on sale and good going August 28th to September 2d.

SLEEPING CAR RATES.—One double lower berth from New York or Philadelphia to Chicago, \$5.00; from Chicago to Minneapolis, \$2.00, making \$7.00 through. Drawing-room to Chicago \$18.00, and \$7.00 beyond, making \$25.00 through.

Convenient trains and good connections for the return trip.

PENNSYLVANIA STATE VETERINARY MEDICAL ASSOCIATION.*

RESOLUTIONS ADOPTED AT THE ANNUAL MEETING, MARCH 4 AND 5, 1902.

National Horse Breeding Commission.

WHEREAS, It is proposed to erect a National Horsebreeding Commission for the purpose of encouraging the breeding of certain types of useful horses, and,

WHEREAS, The good results of the work of this Commission will be in proportion to the skill and expert knowledge possessed by its members, be it

Resolved, That we heartily approve the principle of the erection of a National Commission to give advice and assistance in respect to the breeding of horses, and be it further

Resolved, That we recommend that it shall be provided in the organic law erecting such a commission that the veterinary knowledge and skill of the country shall have membership representation.

The Board of Veterinary Examiners.

WHEREAS, It was the earnest desire of the members of the State Board of Veterinary Medical Examiners, of this organization, and of the large body of professional veterinarians throughout Pennsylvania, that the work of the Board, its methods, plans

*The minutes of this meeting were published in full in the June REVIEW, many of the reports of committees and papers presented followed in the July number, while the present issue contains the remainder of papers and reports of interest to the profession at large—those omitted being County Secretaries' reports and other matters having a purely local relation.

and especially the important work now in progress should continue along the same successful lines as heretofore, and,

WHEREAS, Results depend largely upon practical experience, which it requires time to gain, especially in the office of Secretary, with its immense accumulation of detail and data, besides important daily correspondence; therefore be it

Resolved, That the Pennsylvania State Veterinary Medical Association in session assembled extend its approval and a vote of thanks to our respected Governor, Hon. Wm. A. Stone, for his consideration and wisdom shown in the recent reappointment to the office of the Secretary of the State Board of Veterinary Medical Examiners, its old and experienced incumbent, Dr. W. Horace Hoskins, of Philadelphia.

Clinics at the Meetings of the American Veterinary Medical Association.

WHEREAS, The American Veterinary Medical Association has by its recent policy infringed upon the proper functions of State and local veterinary societies and, to a corresponding degree, has neglected its own appropriate field, be it

Resolved, That we are emphatically of the opinion that the discussion of questions of purely local and narrow interest is not a proper use of the time of the American Veterinary Medical Association, and especially in view of the fact that many questions of general and broad interest have to remain undiscussed owing to the crowded condition of the programme; be it further

Resolved, That we hereby protest against the continuance of the practice of holding surgical clinics under the auspices of and in conjunction with the meetings of the American Veterinary Medical Association. We deem such exhibitions of no educational value, calculated to obscure the proper functions of the Association and injurious to the profession in the locality in which they are held.

Dr. Rush Shippen Huidekoper.

WHEREAS, We have lost through death our beloved friend and colleague, Dr. Rush Shippen Huidekoper, one of the greatest builders of the veterinary profession in America, be it

Resolved, That with a sense of profound loss and sorrow and with the wish to record in permanent form our appreciation of the life and service of Dr. Huidekoper, a brief history of his career shall be prepared by the Resolution Committee and spread upon the minutes of this Association. Be it further

Resolved, That our sincere sympathy is extended to Mrs. Huidekoper in her great affliction.

Mrs. D. E. Salmon.

WHEREAS, Through the death of Mrs. Salmon, Dr. D. E. Salmon has sustained the loss of a loving and helpful consort and society has been deprived of a gentle, refining influence, be it

Resolved, That we offer to Dr. Salmon our deepest sympathy in his loss and bereavement.

Drs. Pearson and Ravenal.

WHEREAS, There has already been much valuable work done at the University of Pennsylvania and is now being done under the direction of our esteemed colleagues Dr. Leonard Pearson and Dr. M. P. Ravenal in the advancement of the study of tuberculosis and tuberculin, and

WHEREAS, This work has not only been most thorough but the reports upon said work most thoroughly systematized,

Resolved, That we hereby encourage the continuance of this work by showing our professional appreciation at this time by a unanimous vote of commendation.

The Live-Stock Sanitary Board.

WHEREAS, The splendid work of our Pennsylvania State Live-Stock Sanitary Board continues to attract attention and recognition at home and abroad, and

WHEREAS, Its generous support and approval by the people of our own State is a source of much gratification to this Association, therefore be it

Resolved, That these most excellent results have largely followed the continuance in place and in power of our colleague Dr. Leonard Pearson. Be it further

Resolved, That we commend most highly the action of our Governor in retaining our colleague in office in this board; our legislature in continuing its financial support to the work of the board, thus expressing confidence and appreciation of the successful work already accomplished.

Thanks to the H. K. Mulford Company.

WHEREAS, We have been instructed and entertained by a visit to the extensive and finely equipped and carefully conducted laboratories of the H. K. Mulford Company and have dined as guests of this company, be it

Resolved, That our thanks are hereby tendered to this firm and we assure them that the visit was very much enjoyed and their hospitality is appreciated.

The Claude D. Morris Incident.

WHEREAS, The American Veterinary Medical Association

at its annual convention at Atlantic City, in September, 1901, placed itself on record as to the ungrateful, unprofessional and cowardly actions of Dr. Claude D. Morris, and justly visited upon him the condign punishment of summary expulsion from its roll of membership, and

WHEREAS, This Association in convention assembled approves of this prompt and proper action of that Association, and be it further

Resolved, That this Association in commending this action, equally regrets and regards with great concern, the attitude of the New York State Veterinary Society in continuing to condone this the most flagrant act of treachery in the history of veterinary medicine in America.

Unity Pledge.

WHEREAS, The State of Pennsylvania has developed a code of veterinary laws that in governing the practice of veterinary medicine and the control of the diseases of animals are the best in the country, but are still imperfect, and as knowledge grows and new conditions develop, will require alterations, and

WHEREAS, Such legislation as now exists was secured through the efforts of the veterinary profession of the State acting as a unit, all difficulties being settled in convention, and a united front being presented to the legislature, and

WHEREAS, Much of the failure to secure equally good conditions in other states, may be traced to dissensions in the profession itself, be it

Resolved, That we, the members of the Pennsylvania State Veterinary Medical Association in convention assembled, realizing the advantages resulting from a policy of unity and the suicidal folly of dividing and urging conflicting measures and recommending opposing candidates, hereby pledge ourselves and our Association, all matters of interest to us as a profession, and then striving as a harmonious and united body for the purpose decided to be the official purpose of this body.

SOME THOUGHTS ON MUNICIPAL MILK INSPECTION.

By J. M. CARTER, V. M. D., Philadelphia, Pa.

From my actual and practical experience in the milk business in almost all its various phases and from my observation as a veterinarian practicing in one of the first dairy districts of the country, I have had an opportunity to observe and know pretty nearly the actual character of the milk consumed by the people of a large city like this, and I think I can safely say that

if the consumer was to see the cow that produced the milk used on his table, and follow that milk from the cow to the table, he would use it very sparingly on his oatmeal and in his coffee, and least of all give it to his baby or sick child to drink. Of course there are some well-equipped dairies and careful dairymen, who are producing some wholesome milk, but I am speaking of the great majority of dairies as I have seen them. We all know how readily almost all germs grow and develop in milk, and how easily it becomes infected, and being consumed in the uncooked or raw state, it must be the medium by which the germs of many infectious and contagious diseases are taken into the system. The history of many epidemics of typhoid fever, scarlet fever and diphtheria, to say nothing of tuberculosis, can be traced to this source. It is hardly necessary for me to enumerate to you the places and mode in which milk becomes contaminated. It seems to me everything is dirty in connection with milk. The stables so often dark and damp and poorly ventilated with little or no drainage—veritable breeding places for disease. The cows packed as close as possible to economize room, and stables shut up tight in winter time to keep each other warm, and in the morning the air is so heavy with ammonia and offensive gases you can hardly breathe. The drinking water for the cows often comes from barn wells into which can drain the barn-yard or outbuildings.

At milking times the milk cans are often brought right into the stables or entry, and remain there until the milking is finished, in the atmosphere laden with dust and exhalations from the cows, and in fact I have often seen the milk cans remain in the stable all night in the winter time to keep the milk from freezing.

The cows are seldom or never cleaned, and covered with loose hair and exfoliating epithelium and their quarters and bellies plastered with dried or wet effete matter which is constantly falling into the bucket or being brushed off by the milker generally with dirty hands and dirty clothes, often wetting the teat with milk or froth which drips into the bucket; or I have seen the filthy habit of spitting on the hands to wet the teats, in fact very seldom is any regard whatever paid to cleanliness or hygiene. I have seen often thick milk, stringy milk, bloody milk, all dumped into a can together, and not even when the cow puts her foot in the bucket, is the milk seldom rejected.

The buckets and strainers are little improvement on the

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other procedures, especially the latter, which are generally in bad repair, only catching the larger portions of foreign matter which have dropped in, allowing the bulk of the dirt to pass through and settle to the bottom of the can. On arriving in the city in not too overly clean cans, the treatment is somewhat better, but even here milk shipped in bulk is subjected to much exposure on the R. R. platform. It is often dumped around from one can to another and sampled and tasted before taking home. Many milk houses are well-equipped, but there are many very badly, and often next to the kitchen or living room with the doors constantly open.

The manner of handling bulk milk on wagons is especially bad, the cans being opened at every stop and exposed to the dusts of the streets and alleys, which is made up largely of dried horse manure and sweepings from houses. Milk in bulk leaves many temptations to the milkman. If a little short of supply how easy it is to fill up the can with skimmed milk or possibly water, and in the summer time preservatives which are found in nearly all milk houses, and in winter, coloring matter.

One who has never lived in the country or been associated with the dairy business does not know these things, and the majority of consumers of milk look only at the milk as it seems before them, and think only of the Jersey cow, the green fields, the buxom dairymaid and the old spring house with its cool crystal water. These are the thoughts that present themselves to the ordinary city resident whose knowledge of the dairy is only his recollections of boyhood days or a week's stay in the country in summer time. Such people only judge of the quality of milk by its color and amount of cream it raises.

Possibly a great deal of this milk, even if teeming with germs from filth and exposure, is drunk and consumed and does no apparent harm, but the manner and carelessness with which the bulk of the milk is handled certainly leaves many ways by which the milk may become contaminated with diseased germs and bring serious trouble, and I believe far greater than is as yet known. We have already some astounding reports from the few observers who have made a study of the spread of diseases through contaminated milk, but we can never know how far-reaching or how great the loss of health and life has been through our pernicious milk supply.

Dr. Hart and Dr. Freeman, of New York, have collected statistics of thousands of cases of diphtheria, typhoid fever and scarlet fever traced directly to the milk supply. The milk

becoming infected from the cow producing it or during its handling from the cow to the consumer, cholera, dysentery, acute milk poisoning and cholera infantum of children have been traced to the milk by the few who have traced the source of these diseases.

Dr. Freeman has classified diseases conveyed by milk to man into three classes:

1st. Those in which the diseased germs are introduced into the milk from the body of the diseased cow.

2d. Those in which the germs are introduced into the milk from some other source, either during or after milking.

3d. Those diseases caused by milk which contains poisonous agents developed by bacterial growth.

We shall consider the diseases under each class separately. By far the most important disease under the first class is tuberculosis. Although disputed by some, the vast amount of evidence and cases recorded, both circumstantial and positive, accidental cases seem to prove beyond a doubt that innumerable cases of tuberculosis in man have been caused directly by consuming milk from tuberculous cows. It is not necessary for me to cite these cases here. They are too familiar to you all.

2d. Anthrax. A few observations by infection from milk from anthrax cows have been made where the disease is more prevalent. In this country, where the disease is comparatively rare and generally so severe a form and pronounced symptoms that the milk is seldom used, at least I have no record of such.

3d. Foot and Mouth disease also comparatively unknown in this country. In England the disease has been caused in man directly by consuming milk from cows suffering from the disease.

Acute Enteritis. Although the number of cases are small three dogs seem to be direct evidence in two or three cases where the disease was traced directly to a cow suffering with this disease and transmitting the same to all those drinking her milk. If more observation were made I doubt more cases could be traced to the same source. Under this class also may be considered disturbances often seen in young children, as colic, cramps, vomiting and diarrhoea. These disturbances are often due to changes in the milk when a cow is suffering with garget or mammitis, even if the ropy, stringy, often pus-like milk from the effected quarter of the udder is discarded the remainder of the milk is found to be acid and has been often known to cause these disturbances when fed to infants. Similar results have

been noted on feeding infants on milk from cows unduly excited from any cause, especially at rutting periods, when the cow is allowed to race after other cows and often create much excitement in the herd. It is my belief that much of the digestive disturbances of infants is due to improper milk and that the cow furnishing the milk for the baby should have just as good care and food as a mother suckling her baby.

Certain poisonous plants when eaten by the cow may cause no apparent disturbance to the cow, but transmit the poisonous principle to the milk, which affects infants in different ways, depending upon the character of the plant eaten. The use of milk too soon after calving, before the milk is entirely free from colostrum, causes colicky pains, vomiting and diarrhoea in infants.

Every farmer knows that if you put a six weeks old calf on a fresh cow it will cause scours, and yet he does not hesitate to dump her milk into the cans after about two or three milkings when it takes three or four days at least to free the milk from colostrum.

In diseases of the second class or when the pathogenic organism enters the milk outside the cow. In all epidemics due to milk there are certain characteristics upon which the source of the epidemic is concluded, as seldom or never has the germ of the disease been found in the specimen of milk obtained. The cases appear suddenly and many new cases each day, and the subsidence is equally marked when the milk supply is stopped. The houses invaded are widely distributed and not restricted to a particular part of the town. The houses of the rich are more apt to be affected than the houses of the poor, as the rich use more milk and have often a special water supply. The milk drinkers of the family are the ones mostly affected and is largely among children. In nearly all of the recorded epidemics a patient suffering with the disease has been found at the source of the milk supply. The most frequent of these epidemics is typhoid fever, of which Dr. Hart, of New York, gives statistics of fifty epidemics with 3,500 cases, and Dr. Freeman gives statistics of 53 epidemics and 3,226 cases. In my vicinity there has been three epidemics of typhoid fever, one with 50 cases and another 260 cases, and the other nearly 100. In the two former occurring at Elkton the evidence seems perfect and traced directly to the farmer serving the milk, he having typhoid fever in his family and the fever being confined largely to his patrons. In the latter case at my own home, although

there was typhoid fever on the farm serving the milk to the town, the cases did not confine themselves to his patrons, but existed among other milkmen's patrons furnishing the town as well. Although it is known that the milkmen often bought milk from each other, there was some doubt as to the source of the trouble.

Of scarlet fever, 41 epidemics with 2,393 have been reported. In nearly all these cases, as in typhoid, a patient suffering with the disease was found at the source of milk supply.

Of diphtheria Dr. Freeman reported 18 epidemics with 1000 cases. Not so large a number of the epidemics of diphtheria could be traced to a case of diphtheria on the farm supplying the milk, but with diphtheria in man the attack may be so light as to have been overlooked or possibly may have been of feline origin, as cats are known to suffer with a throat trouble closely resembling diphtheria, and wheezy old cats are very common around barns, often lapping milk from the buckets and cans. An epidemic of diphtheria has recently occurred in Wayne, in which nearly every case was traced direct to the dairyman's son, who was suffering with the disease.

Cholera epidemics have been traced through the milk supply to the farm furnishing the milk, either from a case of cholera occurring on the premises or in the water used to dilute the milk.

In those cases of typhoid fever and scarlet fever where no case existed on the farm, it may have been the water supply on the farm which was polluted, as the farm wells are often drained by barn yards or out-buildings, and it is a common custom for farmers to rinse the buckets and cans in this water and fill the cans with the rinsings.

Disease caused by milk which contains poisonous agents developed by bacterial growth. A few cases of this kind have been recorded, in which a large number of people were effected and on examination the tyrotoxicon of Dr. Vaughn was found in the milk. This poisonous ptomaine is the result of the growth of a certain bacteria, which is commonly found in cheese.

In summing up the evidence of the records just given, we may conclude that infection from milk is well established in typhoid fever, scarlet fever, diphtheria, tuberculosis, cholera, foot-and-mouth disease, acute enteritis, possibly anthrax. Acute milk poisoning in infants resembling cholera infantum is frequent, but seldom traced to the proper source.

Acute poisoning of adults by milk containing tyrotoxin has occurred. All this is known of the recorded epidemics that have occurred, while many cases are never recorded and many more are never traced to their source. I believe all this sickness and death, directly due to contaminated milk, is to a great extent preventable by proper legislation concerning the inspection of dairies and the handling of milk which is furnished to our cities and towns.

A study of these epidemics and the evils which have arisen and are arising every day teaches us:

1st. That wherever a communicable infectious disease is reported a rigid and careful inquiry into the source of the milk supply should be made.

2d. Proper legislation should be made concerning the inspection of dairies and the handling of milk.

3d. In each city or town should be a special committee or bureau to look after the milk supply, also to enforce the laws and to have charge of the inspection and to whom all outbreaks or deaths from contagious diseases should be reported that the farm and dairy could be examined in search of the cause of the trouble.

4th. That each farmer desiring to ship milk for consumption should be compelled to take out a license for the same and that his dairy, stabling, water supply and dairy apparatus were in proper condition to produce wholesome milk.

5th. There should be sufficient inspectors appointed and paid by the town to which the milk is furnished to inspect each dairy at least every three months to see that the cows are healthy and that the rules of the bureau are being enforced.

6th. That the methods of handling milk in bulk be abolished, and all milk used for food purposes to be consumed raw to be bottled and sealed on the farm, and that seal not broken until it reaches the consumer, and thus avoid much exposure and any tampering or contamination after leaving the farm. Also that each bottle should be stamped day and date and name of shipper.

7th. All whole milk shipped in bulk or skimmed milk which is largely used for cooking, but if used raw should be heated to at least 155° F. The skimmed milk which largely comes from creameries is certainly unsafe to feed a child, as it is submitted to any amount of exposure, and preservatives are used very freely in skimmed milk. We have all seen too many cases of tuberculosis among calves fed on creamery skimmed milk not to condemn it for infant feeding.

How a people in this enlightened age can go on year after year buying and consuming a product produced and marketed with such negligence as regards purity, cleanliness and healthfulness seems like a relic of barbarism. I believe it is our duty to mankind as veterinarians and knowing this evil to expose these facts on all occasions and in every way and to use every effort to establish the milk supply of our cities and milk supply in general on a proper basis, and if we succeed in this it will be one of the biggest and greatest works done to our credit.

VETERINARY MEDICAL ASSOCIATION OF NEW JERSEY.

The semi-annual meeting of the Veterinary Medical Association of New Jersey was held at Stetter's Assembly Hall, 842 Broad St., Newark, on Thursday, July 10th, and the following members responded to roll-call:—Drs. A. W. Axford, A. Brown, T. Earle Budd, D. J. Dixon, J. M. Everitt, J. B. Finch, W. J. Fredericks, J. O. George, James T. Glennon, G. P. Harker, W. F. Harrison, R. O. Hasbrouck, E. A. Hogan, J. B. Hopper, B. F. King, E. L. Loblein, Seth Lockwood, Wm. Herbert Lowe, A. P. Lubach, Chas. T. Magill, E. Mathews, James T. McDonough, James M. Mecray, John M. Mitchell, John P. Mathews, R. F. Meiners, E. R. Ogden, George W. Pope, Werner Runge, T. E. Smith, A. T. Sellers, M. M. Stage, S. S. Treadwell, L. E. Tuttle, and H. Van der Roest.

Hon. S. B. Ketcham, of the State Tuberculosis Commission, and Dr. Samuel Glasson, veterinarian in the U. S. Army and on a two months' leave of absence after a term of service in the Philippines, were in attendance as guests of the Association.

The following approved applications for membership were in the hands of the Secretary: Dr. Phineas Bridge, Montclair; Dr. G. Walter Dilkes, Mullica Hills; Dr. John L. McCoy, Sussex; Dr. John C. Petersen, Jersey City; Dr. T. B. Rogers, Woodbury; Dr. George B. Vliet, Hackettstown; and Dr. Thos. H. Ripley, Newark. Upon ballot the above were unanimously elected to membership. Drs. Bridge, Dilkes, Rogers and Vliet were present and were introduced by Dr. Lowe.

Great interest centered in the report of the Committee on Legislation, and as Dr. Budd, Chairman, recounted the work of the committee and the efforts put forth on behalf of the bill, which has now become a law and is for the regulation of the practice of veterinary medicine, surgery and dentistry in the State of New Jersey, no one present could fail to be impressed

with the fact that in organization there is power if in the organization there be a common aim and men who are willing to sacrifice time, money and energy without expectation of personal aggrandizement. The impression prevails that the story was not half told by Dr. Budd. Men who achieve are usually endowed with a corresponding modesty and it must be left to others than the members of this committee to fully narrate the difficulties met, the tact displayed and the untiring energy exhibited by those to whom the Association entrusted this important measure. He would be a dull man who in the light of the passage of this act could not see the veterinary profession of New Jersey reaching a higher plane. He would be a poor association member who after listening to the report of the Legislation Committee did not "enthuse" or feel proud to be affiliated with an organization which stood for advancement, and thus may be explained a feeling of optimism and dignity which pervaded the meeting held at Newark on the 10th.

After the report of the Legislation Committee had been received with thanks, Dr. Lowe was called from the room, and, with Dr. Budd in the chair, a purse was raised and a committee dispatched to purchase a sterling silver dinner set for presentation to Dr. Lowe in recognition of the effort put forth by him in behalf of the recently enacted law. The presentation was made at the close of the banquet and will be referred to later.

Under "New Business," Vice-President Budd again assumed the chair in order to enable President Lowe to present several matters which are here given as presented to the Association.

RECOGNITION OF THE PASSAIC COUNTY VETERINARY MEDICAL ASSOCIATION.

(Motion by Dr. Lowe.)

"MR. PRESIDENT:—I take great pleasure in reporting that ten regular practitioners of veterinary medicine, resident in Passaic County, met at my office in the city of Paterson on Monday evening, July 7th, 1902, and organized a Passaic County Veterinary Medical Association.

"It is the intention and purpose of this organization to be in affiliation with the Veterinary Medical Association of New Jersey, and it was resolved that the Passaic County Veterinary Medical Association should be to the veterinary profession of the county what this association is to the profession of the State.

"The members of the local organization pledged themselves

to do all in their power as individuals and as members of the society to advance and promote the common interests of the profession in the county of Passaic.

"The veterinarians of the various counties wherever there are a sufficient number of practitioners to warrant it, should organize county societies in their respective counties. Nothing in my opinion would strengthen the State Association more than live county societies.

"The organization of the Passaic County Veterinary Medical Association, I predict, is only the beginning of a movement to establish similar local organizations throughout the respective counties of the State. Mr. President, I have the honor to announce the Passaic Veterinary Medical Association, duly organized in said county (as the first born). I now move you, in behalf of the local organization that the Veterinary Medical Association of New Jersey now in convention assembled, officially recognize, declare and accept the said Passaic County Veterinary Medical Association as the county organization of the county of Passaic in the State of New Jersey, with all the rights and privileges belonging or appertaining to a county association, so long as nothing in its constitution, by-laws or code of ethics shall be inconsistent or conflict with the constitution, by-laws or code of ethics of the Veterinary Medical Association of New Jersey."

The motion was unanimously carried.

Dr. Lowe then spoke of the tireless and able efforts of Senator Wood McKee, which rendered possible the recent veterinary legislation in the State. Also reference was made to the evident approval on the part of Gov. Murphy of the efforts of the association to secure proper and necessary veterinary legislation. It was moved and carried that the by-laws be suspended and the above gentlemen elected Honorary Members of the Veterinary Medical Association of New Jersey.

MINNEAPOLIS PARTY COMMITTEE.

(Motion by Dr. Lowe.)

"It is fresh in our minds how only last September the representative veterinarians of America journeyed from far and near to Atlantic City, upon invitation of the Veterinary Medical Association of New Jersey, to attend the international veterinary convention held at this mecca by the sea. A cordial and hearty invitation is now extended by the veterinarians of Minnesota to the veterinarians of New Jersey to visit them on the occasion of the forthcoming annual meeting of the Ameri-

can Veterinary Medical Association at Minneapolis, Sept. 2d, 3d and 4th. The wives and families of members are included in this invitation. The social features of the annual meetings of the A. V. M. A. are becoming greater and greater every year. Specialists in every phase of veterinary science, as well as the general practitioner, will find much at this meeting of value and interest to them. In fact, no progressive up-to-date practitioner can afford not to attend this great veterinary meeting in September. Special railroad rates will be allowed. Let us, with neighboring States, form an Eastern party and charter a car. I move, Mr. President, that a Minneapolis Party Committee be appointed and that this committee be authorized to form a Minneapolis party which shall include veterinarians of neighboring States who may desire to join the party, and if a sufficient number pledge themselves to join the party to warrant it, to make arrangements and charter a special car." The motion was carried and the following were appointed a committee: Drs. T. E. Smith, of Jersey City; James M. Mecray, of Maple Shade, and G. F. Harker, of Trenton.

This committee was able to report before the meeting adjourned that a rate of \$53.35 for the round trip, New York to Minneapolis and return, had been quoted to them by one of the transportation lines and that the above amount would include accommodations in the sleeping car provided 18 would attend.

The enactment of the new State law made necessary a change in the constitution, and accordingly an amendment was proposed and came up for first reading. This amendment provides that candidates for membership entering the profession on or after the first Monday in May, 1902, must be licensed by the State Board of Veterinary Medical Examiners and be registered in conformity with the provisions of Chap. 18, Laws of 1902.

Hon. S. B. Ketcham addressed the members on the growing need of well-educated and qualified veterinarians and urged that the efforts of the association to secure an educated and competent line of practitioners be continued in the future as it had been in the past.

Recognition of the veterinary profession in the military service was discussed, and the President urged that action be taken toward having it fittingly recognized in rank and title. The Secretary was instructed to communicate with the military officials at Trenton, calling attention to this condition.

At 1.30 adjournment was made for dinner and about fifty members gathered about the board in Stetter's dining hall. At

the conclusion of the dinner Dr. T. B. Rogers, on behalf of fellow-members, presented Dr. Lowe with a set of dinner table silver. In making the presentation Dr. Rogers said in part: "Dr. Lowe, you found us a scattered profession; you have bound us together. You found us without the pale of the law; you have placed a protecting arm around us. In behalf of the profession you have united, I have great pleasure in offering you this little token of our regard."

At the afternoon session Dr. James T. McDonough's paper entitled "The Horse's Foot" was discussed at length.

Dr. McDonough proved his statements by practical demonstration and answered all objections in a clean-cut manner, which strengthened the general impression that he is an authority upon lameness and shoeing.

Owing to the lateness of the hour, Dr. James M. Mecray's paper, upon "Some of the Necessary Qualifications for Producing Wholesome and Clean Milk," was not read, it being voted that the paper be presented by Dr. Mecray at the next meeting.

A ballot was taken to decide upon the place of next meeting. Some favored Lakewood and others Jersey City, but the majority of the ballots were cast for Trenton, and later the vote was made unanimous that the next meeting be held at Trenton on the second Thursday in January, 1903.

At 4 P. M. the meeting was adjourned to the Newark City Hospital, where Dr. Werner Runge, veterinarian of the Newark Board of Health, gave a demonstration of the methods of producing antitoxin serums, and Dr. T. B. Rogers performed three neurectomy operations. A vote of thanks was extended to Dr. Runge, Dr. Rogers and the hospital management for their kindness in making the clinic such a successful feature of the meeting, and the members departed for their homes well satisfied that the day had been a profitable one.

GEORGE W. POPE, *Secretary*.

PASSAIC COUNTY VETERINARY MEDICAL ASSOCIATION.

Drs. W. J. Reagan, M. A. Pierce, Alexander Machan, David Machan, T. J. Cooper, Harry K. Berry and William Herbert Lowe, all of Paterson; Dr. George W. Pope, of Athenia; Drs. A. P. Lubach and J. Payne Lowe, of Passaic, met at Dr. William Herbert Lowe's office, cor. Paterson and Van Houten streets, Paterson, N. J., at 8 P. M. on Monday, July 7, 1902, in

response to a call for a meeting of the veterinarians of Passaic county, for the purpose of organizing a Passaic county veterinary medical association.

Dr. William Herbert Lowe called the meeting to order at 8.30 P. M., stated the object of the meeting, and briefly outlined the advantages and benefits of a county society. It was moved and carried that a county organization be formed, and that a president, first vice-president, second vice-president, secretary and treasurer be elected. The election resulted as follows :

President—Dr. William Herbert Lowe.

First Vice-President—Dr. David Machan.

Second Vice-President—Dr. T. J. Cooper.

Secretary—Dr. Alexander Machan.

Treasurer—Dr. M. A. Pierce.

It was regularly moved and carried that an Executive Committee of five be appointed by the chair. The chair appointed on such committee Dr. George W. Pope (chairman), Dr. Harry K. Berry, Dr. Anthony P. Lubach, Dr. William J. Reagan and Dr. J. Payne Lowe.

Dr. David Machan moved that the next meeting be held July 14, and that the county association meet monthly thereafter ; that the regular monthly meetings be held on the second Monday evening of each month. Carried.

On motion of Dr. Alexander Machan, the meeting adjourned to meet Monday evening, July 14, at the same place and hour.

An adjourned meeting was held at Dr. Lowe's office, Paterson, N. J., on Monday evening, July 14. President Lowe called the meeting to order at 8.30 o'clock.

Dr. David Machan was requested to act as Secretary, in the absence of his brother. The following practitioners of Passaic county answered to their names : Drs. Harry K. Berry, T. J. Cooper, John H. Degraw, William H. H. Doty, William C. Ferguson, M. A. Pierce, Paterson ; George W. Pope, Athenia ; William Herbert Lowe, Paterson ; J. Payne Lowe, Passaic ; A. P. Lubach, Passaic ; David Machan and William J. Reagan, Paterson. Dr. Fredericks, of Delewanna, telephoned that he had been detained and could not reach the meeting in time, and requested the President to announce to the meeting that he would stand by whatever the majority did at the meeting. Dr. Berry stated that he had received a letter from Dr. Brooks (who is away on a vacation), and that he expressed himself as heartily in favor of the movement.

The President reported that the Veterinary Medical Association of New Jersey at its semi-annual meeting in Newark on the 10th instant, had passed resolutions officially recognizing the local organization as the Passaic County Veterinary Medical Association, duly constituted as such in full affiliation with the State Association. The State Association congratulated the veterinarians of Passaic county on starting the movement and on being the first to organize a county association in the State, and expressed the hope that the practitioners of other counties, whenever, and as the number of veterinarians would warrant it, would form county associations in their respective counties.

Dr. Reagan moved that the chair appoint a committee on constitution, by-laws and code of ethics, which was carried. The chair appointed on such committee Drs. Ferguson (chairman), Doty and Reagan.

Dr. Doty moved that the chair appoint a special committee to prepare and present a table of fees and rates of charges for professional services on similar lines with the table of fees of the Medical Society of New Jersey, for the government of the members of this association. Carried. The chair appointed on such committee Drs. J. Payne Lowe (chairman), Fredericks and Degraw.

Dr. Cooper moved that the matter of making a blacklist of "dead beats" be taken up at the next meeting. Carried.

Violations of the provisions of the new veterinary law (Chapter 18, Laws of 1902) were reported, and as the said enactment prohibits all persons not registered before the first Monday in May, 1902, from entering upon or continuing the practice of veterinary medicine, surgery, or dentistry in any of their branches in the State of New Jersey without being licensed by the State Board of Veterinary Medical Examiners and registered at the County Clerk's office in conformity with the provisions of the act, it was decided to procure evidence of violations in this county for the purpose of prosecuting offenders. The association decided to furnish evidence and otherwise aid the State Board of Veterinary Medical Examiners in convicting persons guilty of violating any of the provisions of Chapter 18, Laws of 1902.

It was moved and carried that Dr. J. Payne Lowe be requested to prepare and present a paper on "Veterinary Ethics" at the September meeting of the association (September 8th, 1902).

On motion, the meeting adjourned to meet at the next regu-

lar meeting night (Monday, August 11), at the same time and place.

DAVID MACHAN, *Secretary pro tem.*

This is to certify that we, the subscribers, practitioners of veterinary medicine, surgery and dentistry, of the County of Passaic, State of New Jersey, upon the invitation of Dr. William Herbert Lowe, met at his office, corner of Paterson and Van Houton streets, Paterson, N. J., on Monday evening, July 7, 1902, and organized a Passaic County Veterinary Medical Association, and that it is the intention and purpose of this organization to be in affiliation with the Veterinary Medical Association of New Jersey, incorporated April 15, 1885, under an act of the Legislature for the promotion of veterinary science and art. It is hereby resolved, that this society shall be to the veterinary profession of Passaic county what the Veterinary Medical Association of New Jersey is to the veterinary profession of the State.

We do further hereby pledge ourselves to do all in our power as individuals and as members of this organization to advance and promote the common interests of the profession in this county.

(Signed)

WILLIAM HERBERT LOWE,
DAVID MACHAN,
T. J. COOPER,
ALEXANDER MACHAN,
M. A. PIERCE,
GEORGE W. POPE,
HARRY K. BERRY,
ANTHONY P. LUBACH,
WILLIAM J. REAGAN,
J. PAYNE LOWE,
{ W. H. H. DOTY,
WILLIAM C. FERGUSON,
JOHN H. DEGRAW.

Signed
July 14th, 1902.

NEW YORK STATE VETERINARY MEDICAL SOCIETY.

The programme for the annual meeting, which occurs September 9 and 10 (week following the A. V. M. A.), at Brooklyn, is developing very satisfactorily, and there is every indication that the splendid records made in 1900 and 1901 will be eclipsed this year. While at the hour of closing the REVIEW forms, the arrangements are not sufficiently completed to produce a systematic programme, enough is known to guarantee a full literary calendar and a clinic that will be the best in its history. Dr. George H. Berns, at whose enlarged infirmary the surgical clinic will take place, has furnished us with the following list of demonstrations which he is arranging for:

"Ovariectomy in the Mare," "Ovariectomy in the Bitch, median line and flank," "Extirpation of the Membrana Nictitans from the Horse," "Radical Operation for Toe-Crack,"

"Radical Operation for Quarter-Crack," "Removal of Lateral Cartilage," "Arytenectomy," "Tibio-Peroneal Neurectomy," "Plantar Neurectomy, standing," "Peroneal Tenotomy," "Ophthalmoscopic Demonstrations," "New Method of Suturing Shoe-Boil after Extirpation," "Demonstration of the Use of Stocks," "Fixation of the Knee for Dropped Elbow, etc.," "Operations on the Tail," "Dental Operations," "Median Neurectomy," and others if time will permit. The operators who have agreed to be on hand are Drs. George H. Berns, Charles E. Clayton, W. L. Williams, E. B. Ackerman, George G. Van Mater, Charles S. Atchison, C. E. Shaw, H. D. Gill, William F. Doyle, Elishu Hanshew, Joseph R. Hodgson, R. W. McCully, Robert W. Ellis, and probably others who have not been heard from.

The September REVIEW, which will, on account of the meeting of the A. V. M. A., be published earlier than usual, will announce the completed literary programme. At this early date, however, we are enabled to announce:

"The Etiology of Shoe-Boil," Dr. G. J. Goubeaud, Brooklyn.

"Veterinary Dentistry," by Dr. Robert W. Ellis, of Manhattan.

"Retained Placenta," by Dr. W. L. Williams, of Ithaca.

Dr. T. S. Childs, of Saratoga Springs, is preparing a paper, while Drs. Veranus A. Moore, Simon H. Gage, and Pierre A. Fish, of Ithaca, will also have interesting contributions to the programme, and there will undoubtedly be no lack of papers, though it has been suggested that fewer papers, better discussed, are preferable to the opposite condition.

The arrangements for handling the programme are somewhat different this year than formerly. The convention will be called to order at 10 A. M., and the business of the society disposed of as rapidly as is consistent with thoroughness, so that the literary programme may be begun on reassembling after luncheon; and then the entire afternoon and evening will be devoted to the reading and discussion of papers. On the morning of the second day the members will assemble at the surgical clinic, where the forenoon and part of the afternoon will be consumed, after which the Entertainment Committee will take charge of the guests, and will keep them profitably and pleasantly occupied until it is time for trains.

THE ILLINOIS VETERINARY MEDICAL AND SURGICAL ASSOCIATION will hold its thirteenth semi-annual meeting at the

Brunswick Hotel, Decatur, Ill., August 14th and 15th. The following papers are announced : "Lymphangitis," N. P. Whitmer, Gardner ; "Dermatorrhagia," C. A. Hurlbutt, Stonington ; "Bone Spavin," W. J. Martin, Kankakee ; "Erysipelas," J. W. Marsh, Illiopolis ; "Nephritis," J. M. Reed, Mattoon ; "Entropion and Ectropion," S. H. Swain, Decatur ; "Eczema," V. G. Hunt, Arcola ; "Tetanus," R. W. Brathwaite, Champaign ; "Hysteria," W. A. Swain, Mt. Pulaski.

NEWS AND ITEMS.

DR. RICHARD H. POWERS has been appointed Veterinary Surgeon in the U. S. Army, and assigned to the Artillery service at Fort Walla Walla, Washington.

DR. AND MRS. W. HORACE HOSKINS, of Philadelphia, are traveling in the West, being in Minneapolis on July 10th, from whence they proceeded to Yellowstone Park.

DR. ROSCOE R. BELL, of Brooklyn, N. Y., has been selected to act as official veterinarian to the Bay Shore (L. I.) Horse Show, which takes place on the 8th and 9th inst.

DR. JAMES R. MOSEDALE, of Morristown, N. J., has recently completed the erection of a large veterinary hospital which he expects to equip with the latest appliances. The Doctor is also building a handsome residence.

HERMAN WELLNER, V. S., was dismissed by Commissioner Lederle, of the New York Board of Health, July 1, for irregularities in the conduct of his office of deputy veterinary inspector for Queens Borough. The veterinarian has, we understand, appealed from the Commissioner's action.

OREN D. POMEROY, M. D., formerly professor of ophthalmology at the American Veterinary College, died in May. At a meeting of the New York Otological Society of which the deceased was one of the founders, resolutions attesting the sorrow of the members and their appreciation of his worth, were adopted.

A CÆSAREAN HEROINE.—According to the *Berliner Klinische Wochenschrift*, June 2, a little woman with a rachitic pelvis had four separate Cæsarean operations performed upon her by the same surgeon (Charles). Three of the children, together with the mother are still living ; the other child died of bronchitis at thirteen months.

DR. GEORGE R. WHITE, of Nashville, Tenn., had the misfortune to have had his baby bitten by a rabid dog on June 3, the animal dying on the 6th. The doctor and Mrs. White took

their child to the Pasteur Institute, St. Louis, for the eighteen-day treatment, and there is every reason to believe that all danger has now passed.

PROF. SAMUEL T. MAYNARD, one of the oldest and most respected of the faculty of the Massachusetts Agricultural College, has been forced to resign by the trustees, and the alumni and friends of the college are incensed, and it is predicted that trouble is brewing for the trustees, a political board.

DR. M. C. MCCLAIN, Jeromeville, Ohio, is slowly convalescing from septic infection of both arms, contracted from a case of parturition in a cow which he was attending. He was confined to his room for three weeks, and describes his convalescence as very tedious. Dr. McClain's experience simply emphasizes the precautions which veterinarians should exercise under such conditions.

LYMAN & LYMAN, veterinarians, 332 Newbury Street, Boston, Mass., is the new firm just established, composed of Dr. Charles P. Lyman (late dean of the Veterinary School of Harvard University and of Lyman & Osgood), and his son, Dr. Richard P. Lyman, recently in practice at Hartford, Conn. A new building has been splendidly fitted up as a modern veterinary hospital, with accommodations for horses, dogs and cats. We wish them much success.

COL. ALBERT A. POPE, Boston, who a few years ago predicted that "the horse will be unknown in three years in cities of any size," is at present suffering with a broken arm, the fracture being caused by a fall from his horse. Col. Pope was first the apostle of the bicycle, of which he was an extensive manufacturer, and later invested much money in automobiles, but of late he has joined the Metropolitan Road Drivers' Association in the "Hub" and now remarks that "the horse is good enough for him."—(*Breeder's Gazette*.)

VETERINARY COLLEGES OF GREAT BRITAIN.—Students are now loose for a season, and the members who wanted to write M. R. C. V. S. after their names know whether they have succeeded or not. The condition of veterinary education in Scotland is peculiar. England has one veterinary college, Scotland has three. There is no reason in the nature of things why such should be the case, and certainly the superfluity of colleges is not due to the superfluity of students. This remark always applied, but it has acquired redoubled force during the past two years. Previous to that time a large proportion of the students attending the Scots colleges came from Ireland, but the new move-

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ment in Irish agricultural education included a veterinary college, which has been started in Dublin under the control of Professor Metlam, who was transferred from the Royal (Dick) College in Edinburgh. This college has, of course, diverted the stream of Irish youths, and the Glasgow and Edinburgh colleges are to that extent the poorer. The oldest college in Scotland is the Royal (Dick), founded in Edinburgh three-quarters of a century ago by the famous Professor Dick. It is the only one of the three blessed with an endowment, but even with this and more than a third of all the students attending the Scots colleges, it is not self-supporting. The New Veterinary College in Edinburgh was founded by the late Principal Williams, between whom and the trustees of the Dick College there was some feud. The fame of the teacher attracted many of the best students to its classrooms, but now that he is gone it can hardly be expected to maintain itself. Even in Principal Williams' day the college was only kept going by the aid of a lucrative private and consulting practice. The same remark applies to all the colleges, and it can easily be seen that it is impossible to keep efficient teachers on such terms. The Glasgow college was started many years ago by Professor McCall, one of the shrewdest and most cautious of practitioners and experimenters, and at the same time as fine a lecturer as ever addressed a bench of students or an audience of farmers. The popular professor is getting up in years and naturally desires to get rid of his burden. The partial endowment of the Irish college with public money has naturally led to a demand for similar treatment to the Scots colleges. But the Government has a very effective reply. It cannot give grants of public money to private ventures. The consequence is that there are now before the country various schemes for bringing the colleges under public control, but it may safely be concluded that the first step towards the desired goal must be a union of all the Scots colleges. This would give Scotland a splendid position in the veterinary world, as it is admitted she is easily first in respect of clinical work and meat inspection. In all that concerns the protection of public health, Scotland is far ahead of England or Ireland.—(*Scottish Letter in Farmers' Advocate, Winnipeg, Manitoba, July 5.*)

ONE white foot: buy a horse.

Two white feet: try a horse.

Three white feet: look well about him.

Four white feet: go without him.

PUBLISHERS' DEPARTMENT.

Subscription price, \$3 per annum, invariably in advance; foreign countries, \$3.60; students while attending college, \$2; single copies, 25 cents.

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Alex. Eger, 34 East Van Buren St., Chicago, Ill., Veterinary Publisher and dealer in Veterinary Instruments, Books, and Drugs, is the authorized agent for the REVIEW in Chicago and the Middle West, and will receive subscriptions and advertisements at publishers' rates.

IN perusing the "Bulletins" this month, for new features and new things that may be of value to them, REVIEW readers will find, among other changes, a change in the price of eserine, in the list of "Soluble Hypodermic Tablets, Veterinary," prepared by the Buntin Drug Co., whose advertisement occupies pages 10 and 11 (ad. dept.). The great increase in price of this valuable, and almost indispensable alkaloid in veterinary practice, we are informed, is due to its scarcity; so that it must be borne with patiently, hoping that it may soon settle again, within more convenient reach of veterinarians, who are obliged to employ not less than a grain at a dose.

FLUID EXTRACTS, at the top of the back cover page, attract no little attention; but they are attracting a much more earnest attention in their application to actual practice, by their uniformity of action. Parke, Davis & Co. "standardize them," that accounts for their uniformity of action, and dependable results.

ONE may almost grow poetic, when thinking of the preparations of Charles Marchand, "Hydrozone" and "Glycozone," as they are "ever the same," standard and excellent. No more need be said of them.

PLANTEN'S CAPSULES are sufficiently stout to withstand the summer heat, and are found very convenient for the administration of the liquid stimulant, camphor and ether (popular with veterinarians in exhausting fevers), for the same reason.

EIMER & AMEND, the leading metropolitan wholesale drug house in veterinary supplies, have recently demonstrated their especial interest in the veterinary practitioner, by preparing a "Veterinary Glycerin Suppository," convenient to carry in the satchel in little screw-top glass jars, and prompt in its results. It has proven itself to be even more than was claimed for it. It is economical as well as convenient and efficacious, as, after its expulsion, with the fecal matter or flatus, as the case may be, due to the absorption from its surface, it may be picked up, rinsed off, and returned to its jar, ready for the next case, and so continued until entirely absorbed.

PRACTICE FOR SALE.

For Sale.—Valuable sea-shore and inland practice. Good locality and plenty of work the year around. Practice yielding \$3,000 and more per year for last 11 years. Present owner's health not good. Address ESTABLISHED, care of AM. VET. REVIEW, 509 W. 152d Street, New York.

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